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NUMBER NINE

THE NATIONAL GEOGRAPHIC MAGAZINE

SEPTEMBER, 1912

CONTENTS

Head-Hunters of Northern Luzon

BY DEAN C. WORCESTER

SECRETARY OF THE INTERIOR OF THE PHILIPPINE ISLANDS

WITH 102 ILLUSTRATIONS AND MAP

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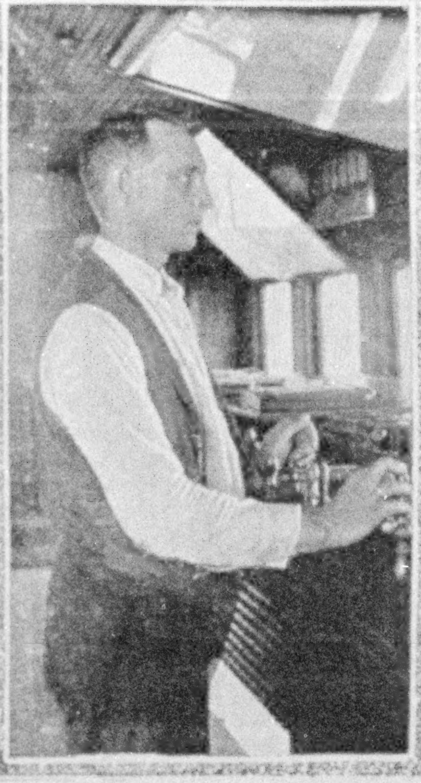

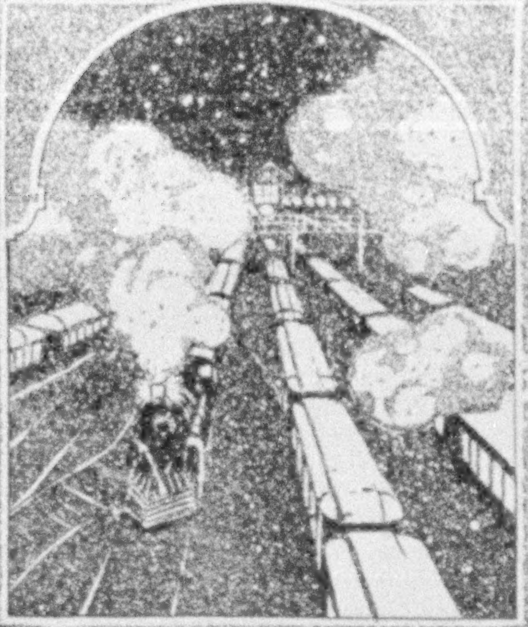

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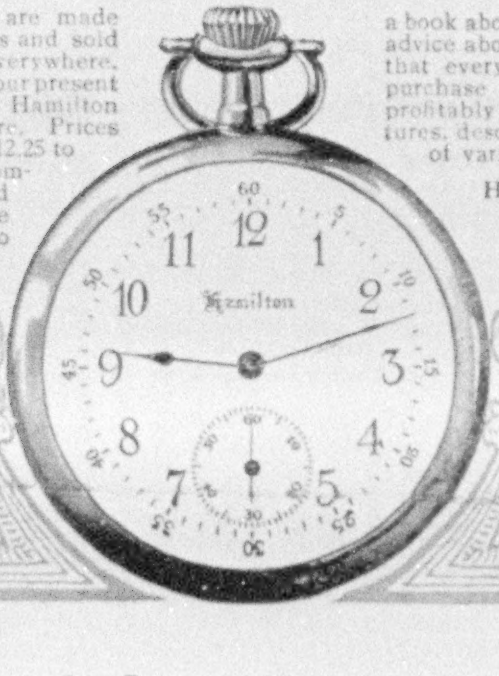

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In an address to the National Geographic Society.—Mr. Bryce is a contributor to the new Encyclopædia Britannica.

"There is, in my opinion, no pleasure comparable to that of studying the earth on which we live and endeavouring to obtain a knowledge of what the Creator has given to the different peoples on this earth, of that which it contains, and how the course of human events, from the time of the prehistoric ages down to the fuller light of our own time, has been determined by the physical circumstances under which the various races of mankind have been led in their several careers."

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The new Encyclopædia Britannica is the only single book in which study of the earth and its peoples may be pursued in the broad sense indicated by Ambassador Bryce. It is the only work of universal reference which has been written throughout under the inspiration and guidance of the *new* geography, by the creators of this science. Within recent years the evolutionary idea, to quote from the article "Geography," by H. R. Mill, "has revolutionized geography as it did biology, breaking down the old hard-and-fast partitions between the various departments and substituting the study of the nature and influence of actual terrestrial environments for the earlier motive, the discovery and exploration of new lands."

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The Land

A few of the 10,838 geographical article headings, suggesting the vast scope of this department by a brief selection from only one of its divisions.

Continents

North America
South America
Europe
Africa
Asia
Australia

Islands

West Indies
Hawaii
East Indies
Australasia
Bermuda
Sakhalin
Philippine Islands
Cuba
Porto Rico
Pescadores
Formosa
Skye
Vancouver
Aleutian
Kuriles
Malay Archipelago
Sokotra
Borneo
Sumatra
Java
Celebes
Quelpart
Etc., etc.

Mountains, Hills, etc.

Adirondacks
Andes
Appalachian
Cascade
Catskill
Pike's Peak
Sierra Nevada
White
Cheviot Hills
The Grampians
The Highlands
Snowdon
Alps
Apennines
Black Forest
Mont Blanc
Carpathian
The Dolomites
Etna
Gemmi Pass
Khyber Pass
Black Hills
Atlas
Spion Kop
Table Mountain
Livingstone Mountains
Abor Hills
Ararat
Black Mountain
Chin Hills
Caucasus
Mount Everest
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Lebanon
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"The article upon the partitionment of Africa was, as a matter of knowledge to me, *worth the cost of the set.*"

L. E. FRANCIS.

A few of the Contributors to the Geographical Department of the Encyclopaedia Britannica

It is characteristic of the new Encyclopædia Britannica that its geographical articles are written by distinguished authorities. For each article was sought the best man in the world to write on that particular subject. The result is an unrivalled mass of original material. The articles dealing with countries and regions are written to a large extent by men on the spot, men familiar with the conditions of which they write by personal observation or intimate association, in some instances having themselves played an important part in connection with the things they describe. The reputation of the Encyclopædia Britannica, for instance, made it possible to secure the cooperation of many men high in official life who had first-hand knowledge of the political or social and economic conditions which they discuss, and who could not otherwise have been induced to give their help. The roll of contributors to this department includes explorers, travelers, and men of influence in world events, as well as scientists of the great seats of learning, who have done creative work in perfecting the theory, methods, and principles of the study of the earth in all its branches and have formulated its most advanced conclusions. Below are given the names of a few of these contributors to the Geographical Department, typical of many others among the 1500 authorities from 21 countries who collaborated to produce the Eleventh Edition.

Dr. OTTO KRÜMMELL	Professor of Geography, University of Kiel
Dr. FRIDTJOF NANSEN	Arctic Explorer
Sir H. H. JOHNSTON	African Explorer
Sir T. H. HOLDICH	Former Superintendent Frontier Surveys, India
Dr. C. R. BEAZLEY	Author of "The Dawn of Modern Geography"
Dr. WILLIAM M. DAVIS	Professor of Geology, Harvard University
RALPH S. TARR (d. 1912)	Professor of Physical Geography, Cornell
Sir CLEMENTS MARKHAM	Late President Royal Geographical Society
Capt. F. BRINKLEY	Author of Standard Work on Japan
Lady LUGARD	Former Head Colonial Department, London "Times"
Sir A. HOUTUM-SCHINDLER	Of the Persian Army
Sir GEORGE GOLDIE	Founder of Nigeria
Dr. J. SCOTT KELTIE	Secretary of the Royal Geographical Society
Prince KROPOTKIN	Gold Medalist of the Russian Geographical Society
ISABELLA BISHOP	Traveler and First Lady Fellow, Royal Geographic Society
Dr. HUGH R. MILL	Editor of "The International Geography"
Dr. JOHN MILNE	Authority on Earthquakes
Dr. F. R. HELMERT	Professor of Geodesy in the University of Berlin
Dr. E. G. RAVENSTEIN	First Victoria Gold Medalist of the Royal Geographical Society
Col. C. F. CLOSE, R. E.	Head of Geographical Section, British General Staff
Dr. THOMAS ASHBY	Director of the British School of Archæology at Rome
Mr. J. D. BOURCHIER	Correspondent of "The Times" in Eastern Europe
Col. R. A. WAHAB	Late H. M. Commissioner for the Aden Boundary Delimitation
Dr. D. G. HOGARTH	Explorer of Ægean Countries
Rev. J. P. PETERS	Late Director of Excavations at Nippur
Sir JAMES G. SCOTT	Superintendent and Political Officer of the Southern Shan States
Mr. W. A. GRAHAM	His Siamese Majesty's Resident Commissioner in Kelantan
Sir HUGH CLIFFORD	Colonial Secretary in Ceylon
Mr. T. A. COGHLAN	Agent-General for New South Wales
Hon. W. PEMBER REEVES	Late High Commissioner for New Zealand
Rev. GEORGE BRYCE	President of the Royal Society of Canada
Prof. J. C. BRANNER	Vice-President of Leland Stanford Junior University
Mr. A. J. LAMOUREUX	Formerly Editor of "The Rio News"

The Water

A few headings out of a total of geographical articles containing 12,000,000 words—an incomplete list from a single group.

Seas, Oceans, etc.

Adriatic Sea
Aegean Sea
Arabian Sea
Baltic Sea
Black Sea
Caspian Sea
Mediterranean Sea
North Sea
Sea of Japan
Sargasso Sea
Norwegian Sea
Sea of Galilee
Red Sea
Dead Sea
Atlantic Ocean
Polar Regions (Arctic and Antarctic)
Indian Ocean
Pacific Ocean
Bay of Bengal
Kiaochow Bay
Hudson Bay
English Channel
Gulf of Mexico
Gulf of St. Lawrence
Gulf Stream
Gulf of Bothnia
Bay of Biscay
Deep Sea Sounding
Suez Canal
Panama Canal
Etc., etc.

Rivers

Danube
Dnieper
Don
Garonne
Loire
Rhine
Rhone
Seine
Tiber
Volga
Congo
Nile
Niger
Niagara
Orinoco
Platte
Potomac
Rio Grande
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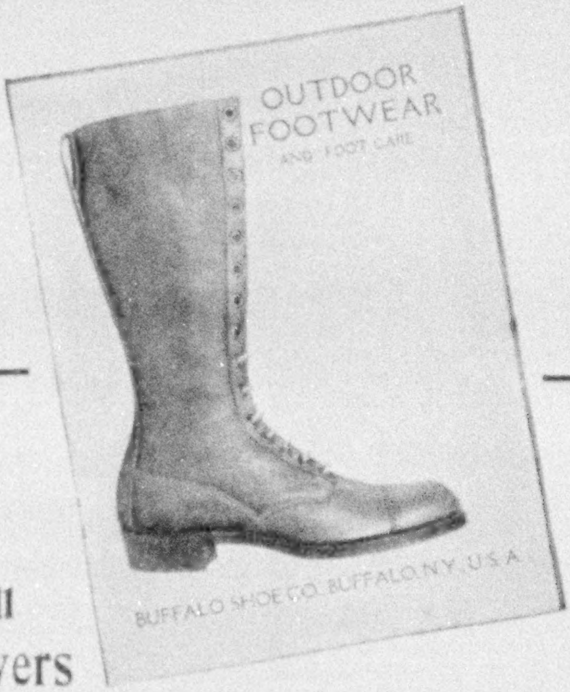

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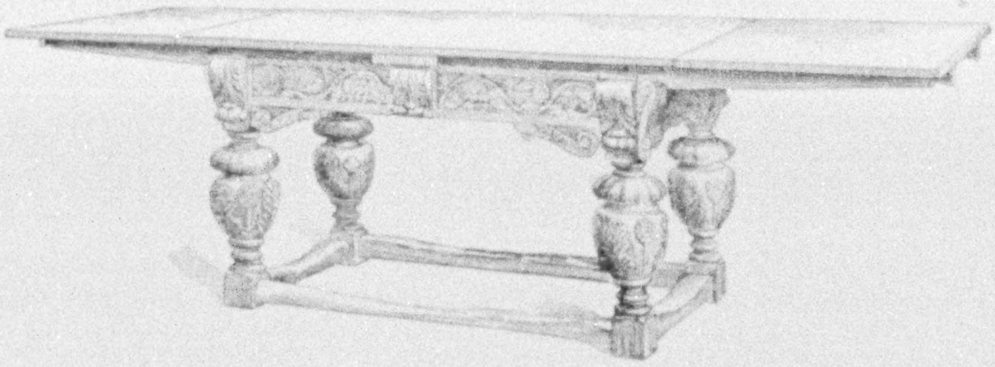

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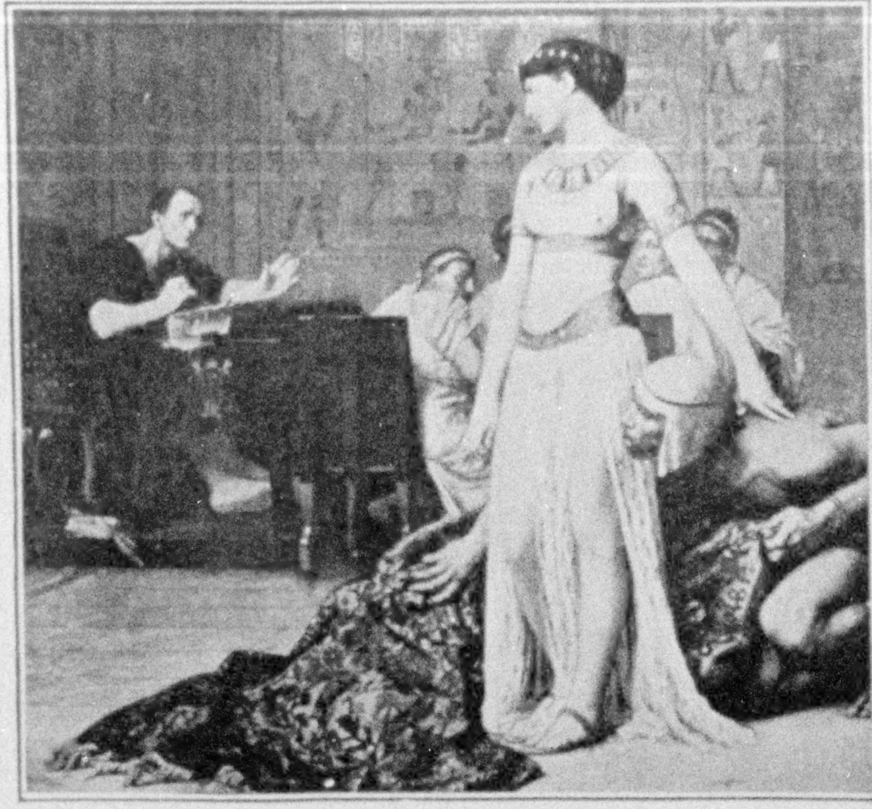

CLEOPATRA OBTAINS AN INTERVIEW WITH CAESAR

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VOL. XXIII, NO. 9 WASHINGTON SEPTEMBER, 1912

THE
NATIONAL
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MAGAZINE

HEAD-HUNTERS OF NORTHERN LUZON

BY DEAN C. WORCESTER

SECRETARY OF THE INTERIOR OF THE PHILIPPINE ISLANDS

Author of "Field Sports in the Philippines," "The Recent Eruption of Mt. Taal," etc., in the NATIONAL GEOGRAPHIC MAGAZINE

IN A recent article in the NATIONAL GEOGRAPHIC MAGAZINE I called attention to the fact that the number of non-Christian tribes in the northern part of the great island of Luzon had been grossly exaggerated, and that there were in reality but seven. The people of all but one of these tribes have, until recently, engaged in head-hunting.

It is my purpose to give, within the limits of this article, a brief account of each of the head-hunting tribes. The photographs reproduced in the accompanying illustrations were taken in part by me and in part under my direction by Mr. Charles Martin, the official photographer of the Philippine government. It should perhaps be said in passing that they are in every case strictly authentic and typical. I have visited the wild man's territory in northern Luzon annually for the past 11 years, and these photographs have been obtained on my yearly inspection trips.

THE NEGRITOS

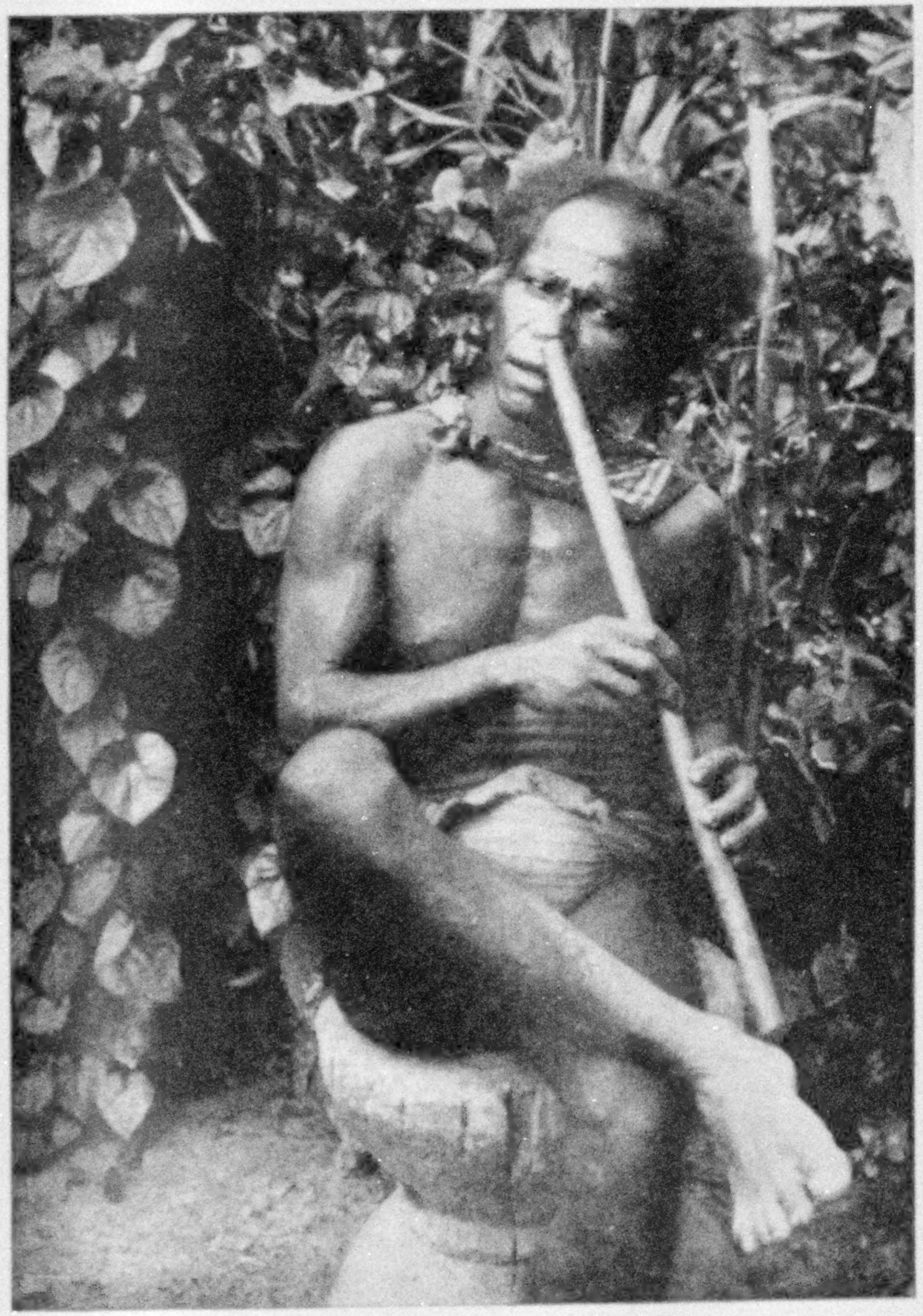
Three years ago had any one stated in my presence that the Negritos, or any of them, were head-hunters, I should promptly have questioned the truth of the allegation; but I have since had reason to change my mind. In August, 1909, I was at last able to visit the hitherto practically unknown eastern coast of northern Luzon. The forest-clad slopes of the great mountain chain extending almost uninterruptedly from Baler to Cape Engaño, and the territory between these mountains and the Pacific, form the last important Negrito stronghold remaining in the Philippine Islands. In this region, and in this region alone, the Negrito is of practically unmixed blood, and has had little or no contact with white men or with Christian Filipinos.

My trip was made during the dry season. At this time, when the sea is as quiet as it ever gets on this forbidding coast, the Negritos come down to the shore in considerable numbers to fish, and it was an easy matter to observe through our field glasses their tiny shelters, which were usually close to, or actually on, the sea-beach.

DIFFICULTIES OF SOCIAL INTERCOURSE

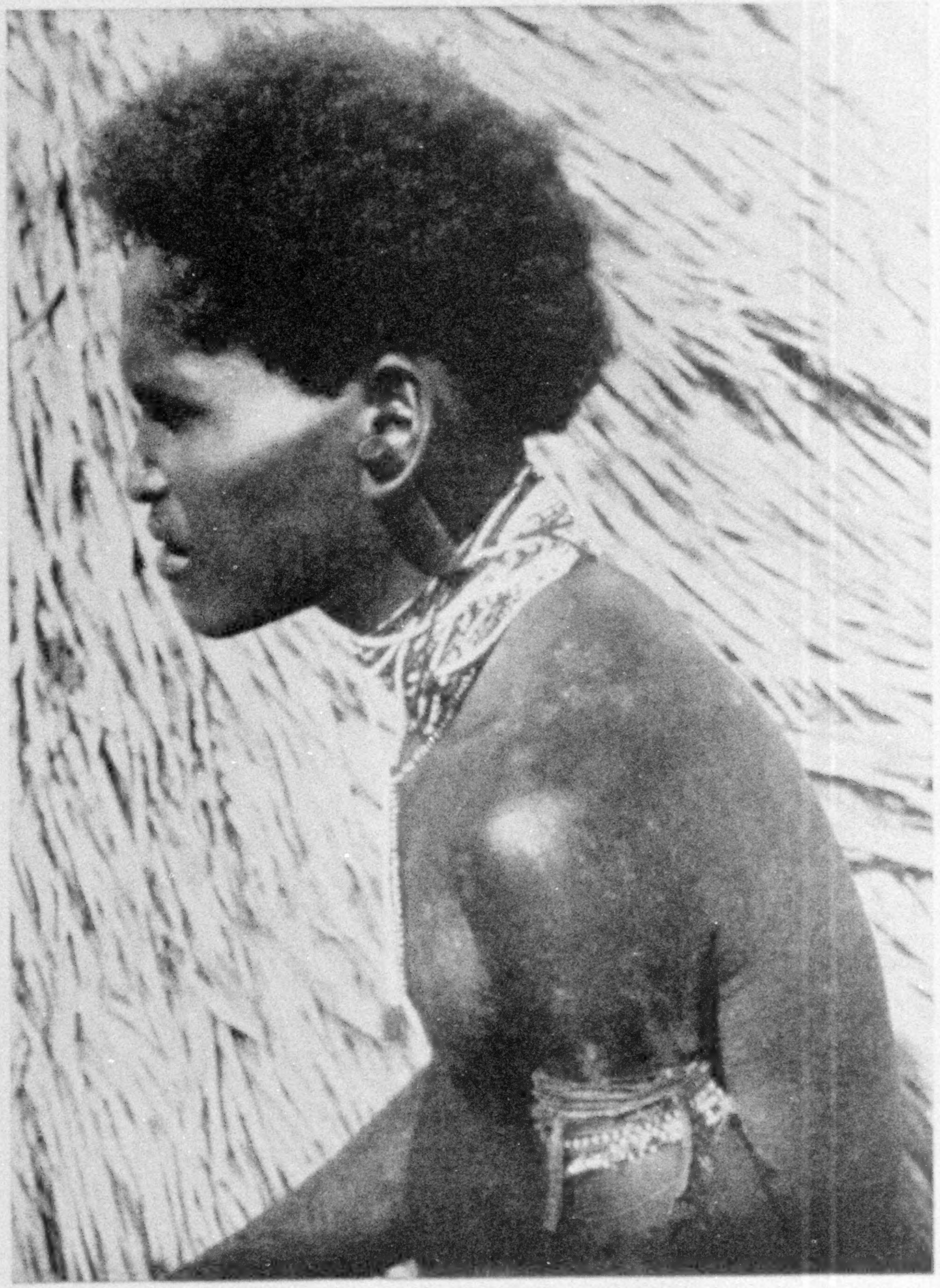
Unfortunately it proved by no means easy to make calls upon the owners of these very primitive structures, owing to their more than retiring dispositions. A barrier reef, sloping abruptly from deep water to the very surface of the sea, borders this coast for scores of miles. Even in periods of apparent complete

XUM



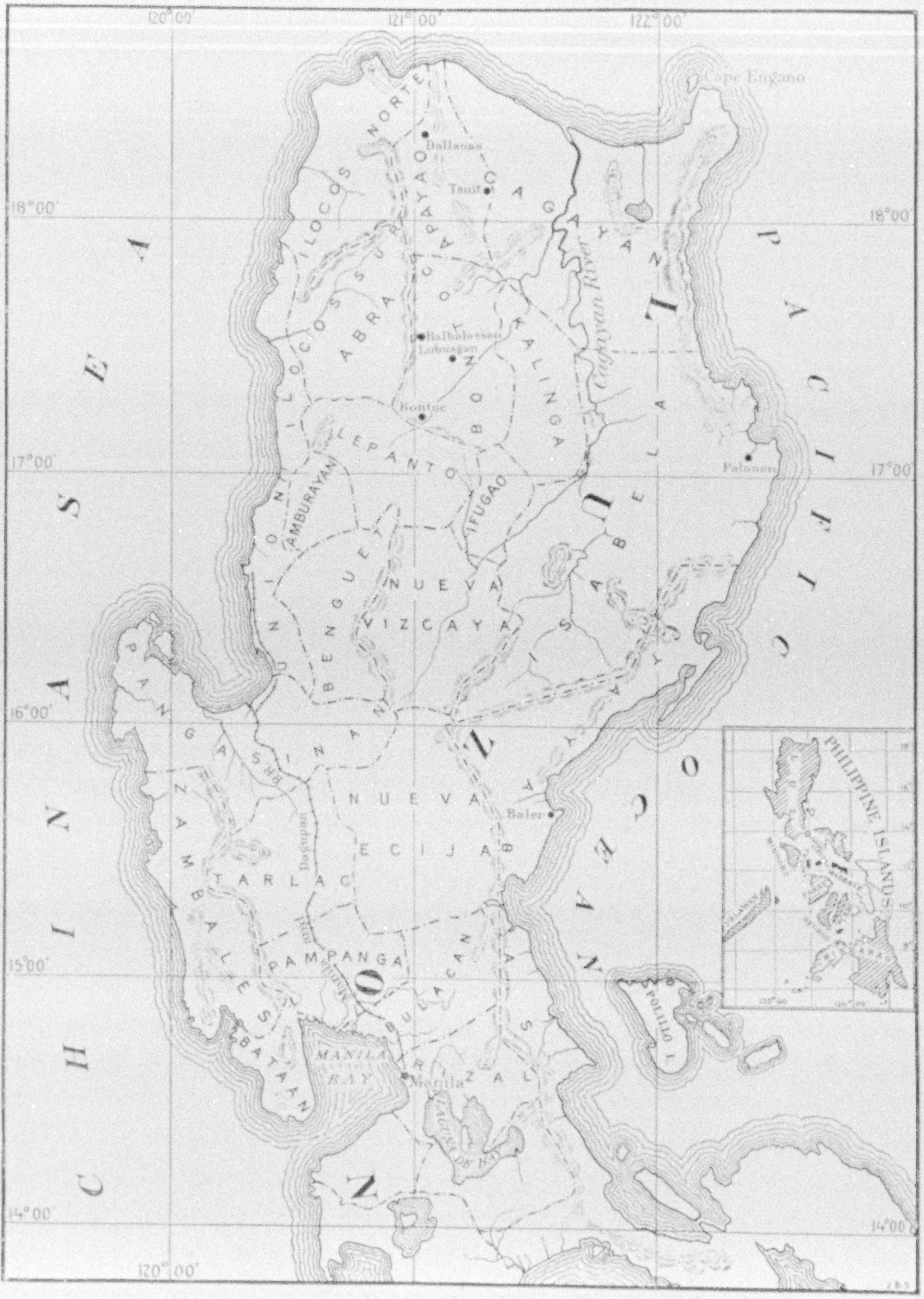
NEGRITO PLAYING A NOSE FLUTE

Many of them know how to make and play upon these weird sounding flutes of bamboo (see page 847)



TYPE OF YOUNG NEGRITO

Profile view showing ornaments, including a bamboo ear plug


120°00'
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ILOCOS NORTE
Dallaoas
Tauit
CAGAYAN
APAYAO
ILOCOS SUR
ABRA
Balbalessau
Lubuagan
BONTOC
Bontoc
KALINGA
Cagayan River
ISABELA
Palanan
LEPANTO
AMBURAYAN
IFUGAO
UNION
BENGUET
NUEVA VIZCAYA
PANGASINAN
ZAMBALES
TARLAC
NUEVA ECIJA
Baler
TAYABAS
PAMPANGA
BULACAN
BATAAN
MANILA BAY
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PHILIPPINE ISLANDS
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OUTLINE MAP OF NORTHERN LUZON

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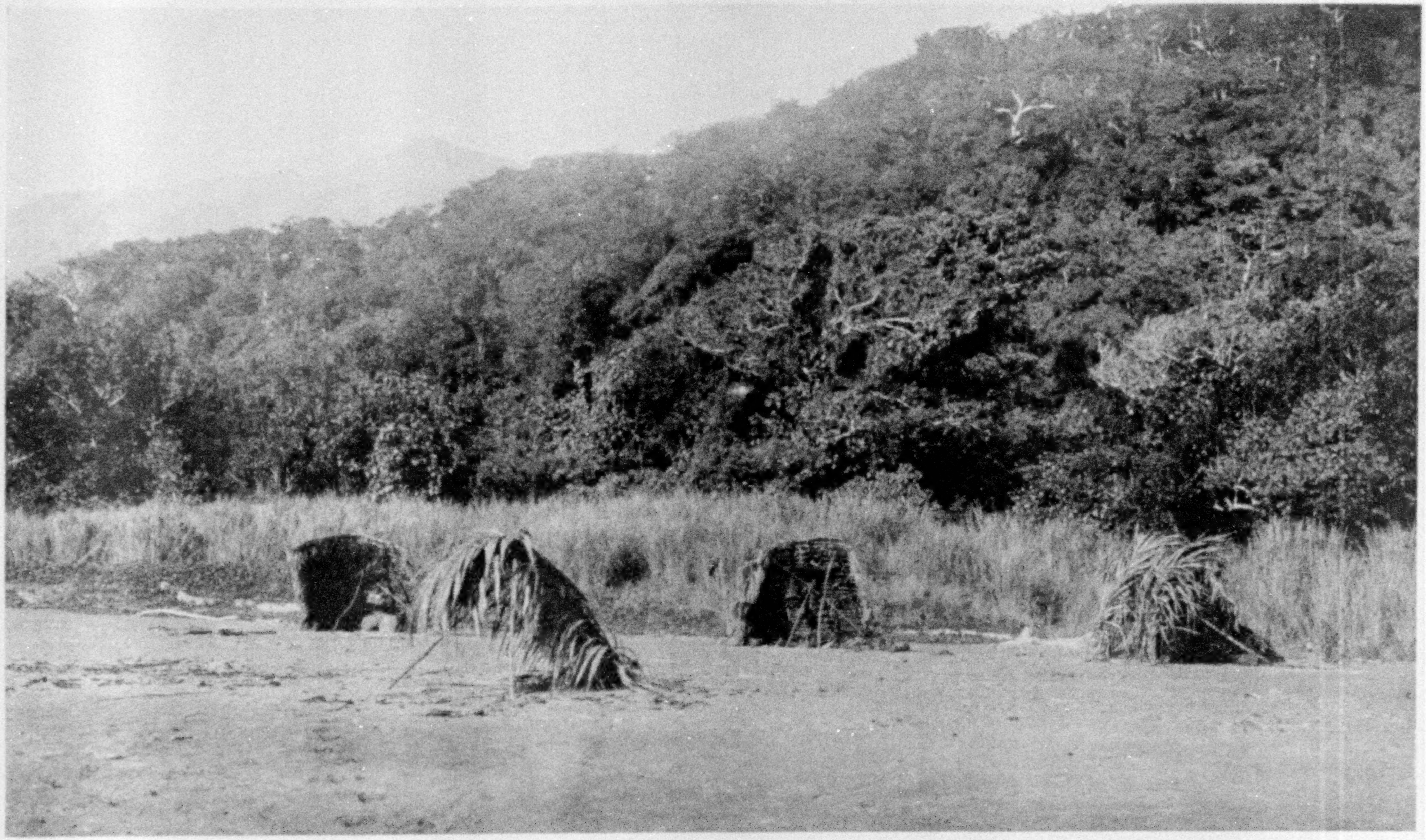
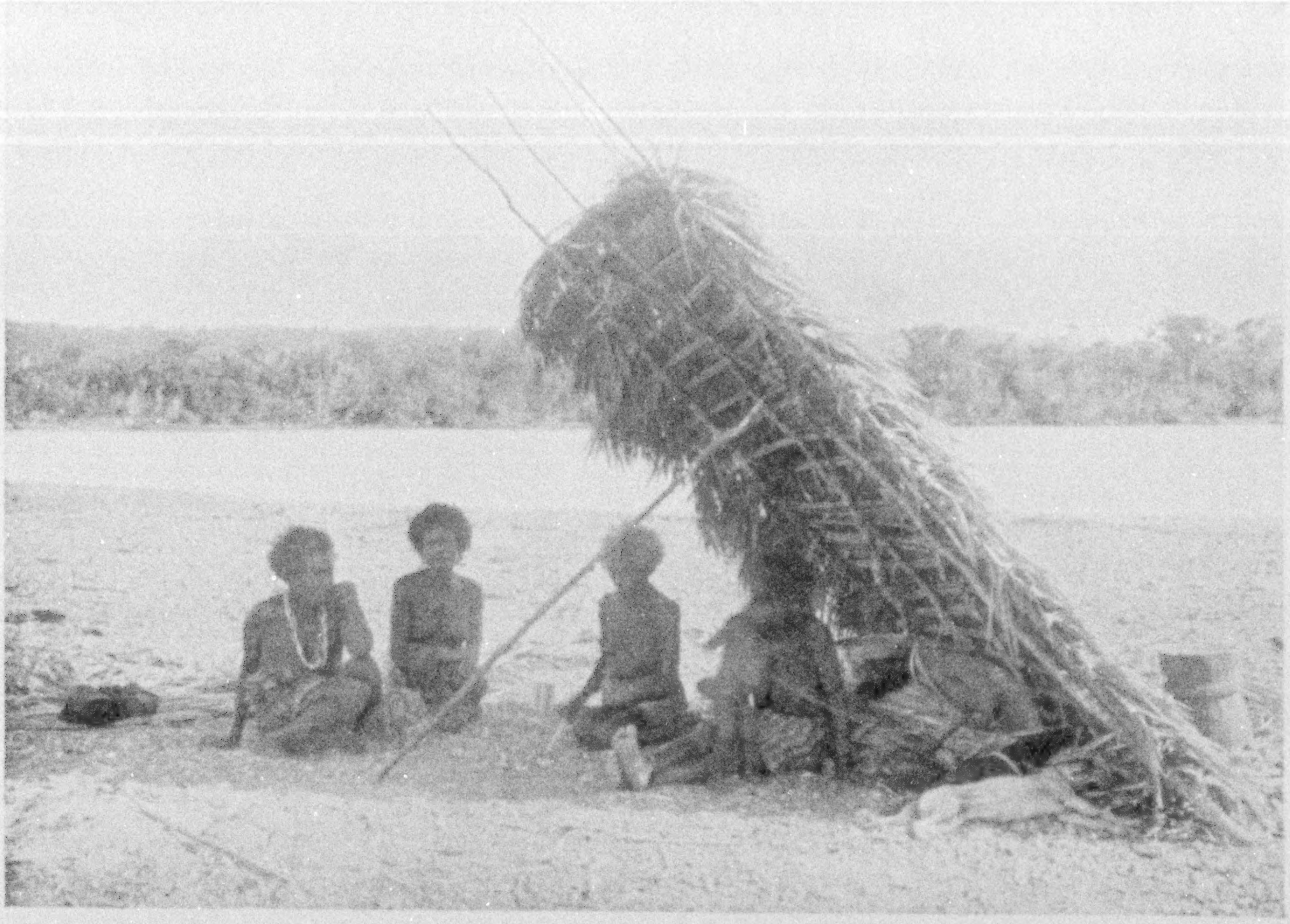


A NEGRITO SETTLEMENT ON THE NORTHEAST COAST OF LUZON

The inhabitants ran away on our approach (see page 837)



A NEGRITO "HOUSE" AND FAMILY

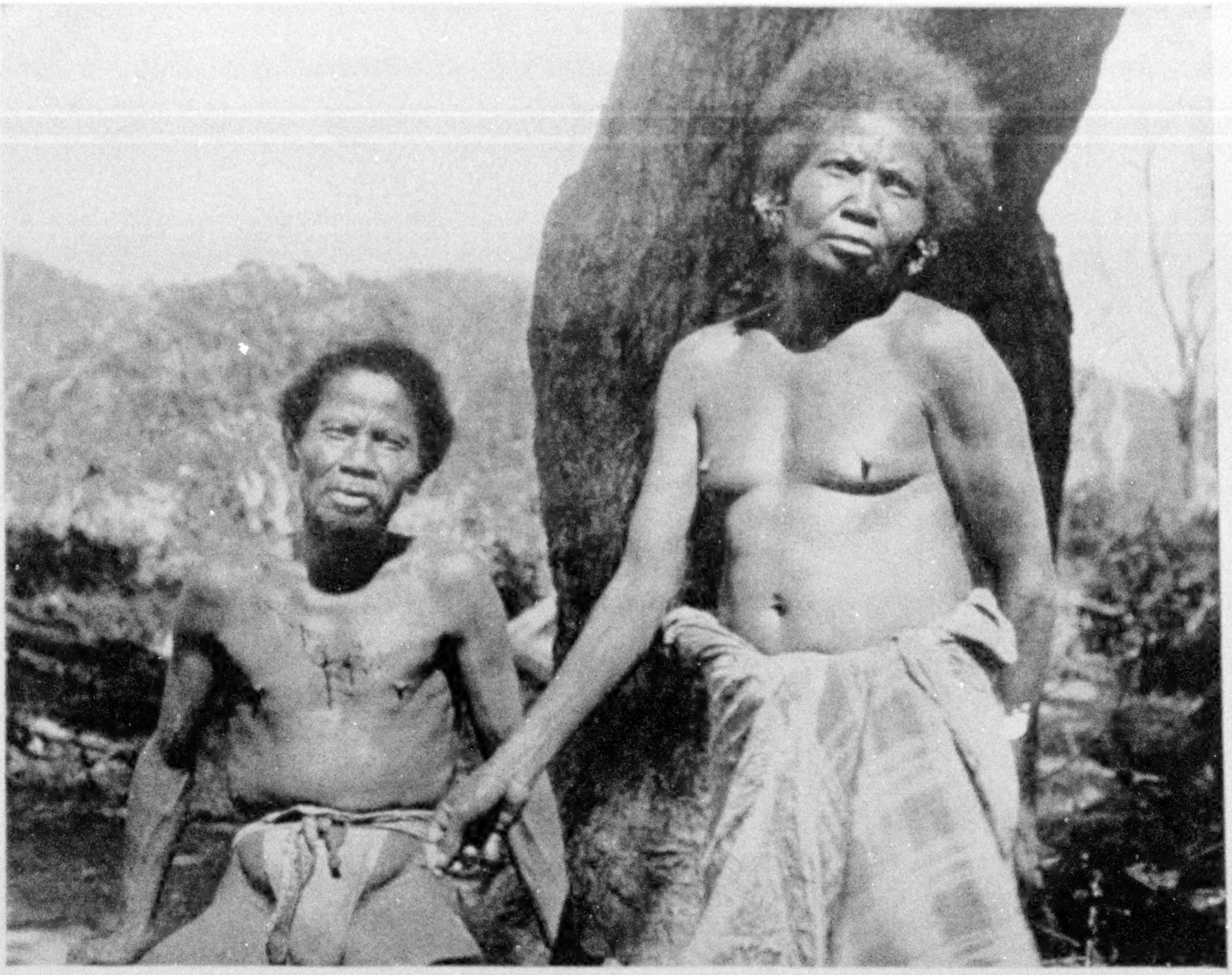
These shelters are inclined toward the sun or wind and vary in size from four feet by five to eight by six. This photograph was taken on the northeast coast of Luzon (see page 841).

calm the long Pacific swell breaks on the edge of this reef in such a manner as to make landing quite impossible.

Although it had been claimed that there were no ports for anything bigger than native dugouts, we found several fairly good small harbors, none of which were shown on the chart. Indeed, long stretches of the coast-line proved to be 10 to 15 miles out of place. We were able to land in these harbors, as well as at several other points where small fresh-water streams had prevented the growth of coral, so that there were passages through the reef to the sea. The approach of our steamer caused consternation among the Negritos, and we could plainly see them abandoning their "houses" in all haste and running for the jungle, where they remained in hiding in spite of all our efforts to get into communication with them (see page 836).

We did not attempt closely to approach their hiding places, as they are the bow-and-arrow men of the Philippines, and use their chosen weapons with extraordinary skill. They smear their arrows with an especially deadly poison, and the civilized Filipinos who inhabit the outskirts of their territory are agreed that a mere scratch from such an arrow is promptly fatal (see page 844).

Not until we reached the immediate vicinity of Palanan, the northernmost Filipino settlement on the east coast of Luzon, did we succeed in getting into actual touch with these interesting and very primitive people. I had previously been among Negritos in the islands of Mindanao, Negros, Panay, and Palawan, and in the provinces of Bataan, Zambales, Pampanga, Rizal, Bulacan, Pangasinan, Isabela, and Cagayn in Luzon. Indeed, I had visited every important region in the Philippine Islands inhabited by Negritos. None of the people of this race hitherto encountered by me were head-hunters; but there is no doubt that the representatives of this tribe which now inhabit northeastern Luzon engage



MAKING ORNAMENTAL SCAR PATTERNS

The man has just had numerous cuts made into the skin of his chest, into which dirt will be rubbed. The woman holds between the thumb and forefinger of her right hand the piece of bamboo with which she did the cutting.

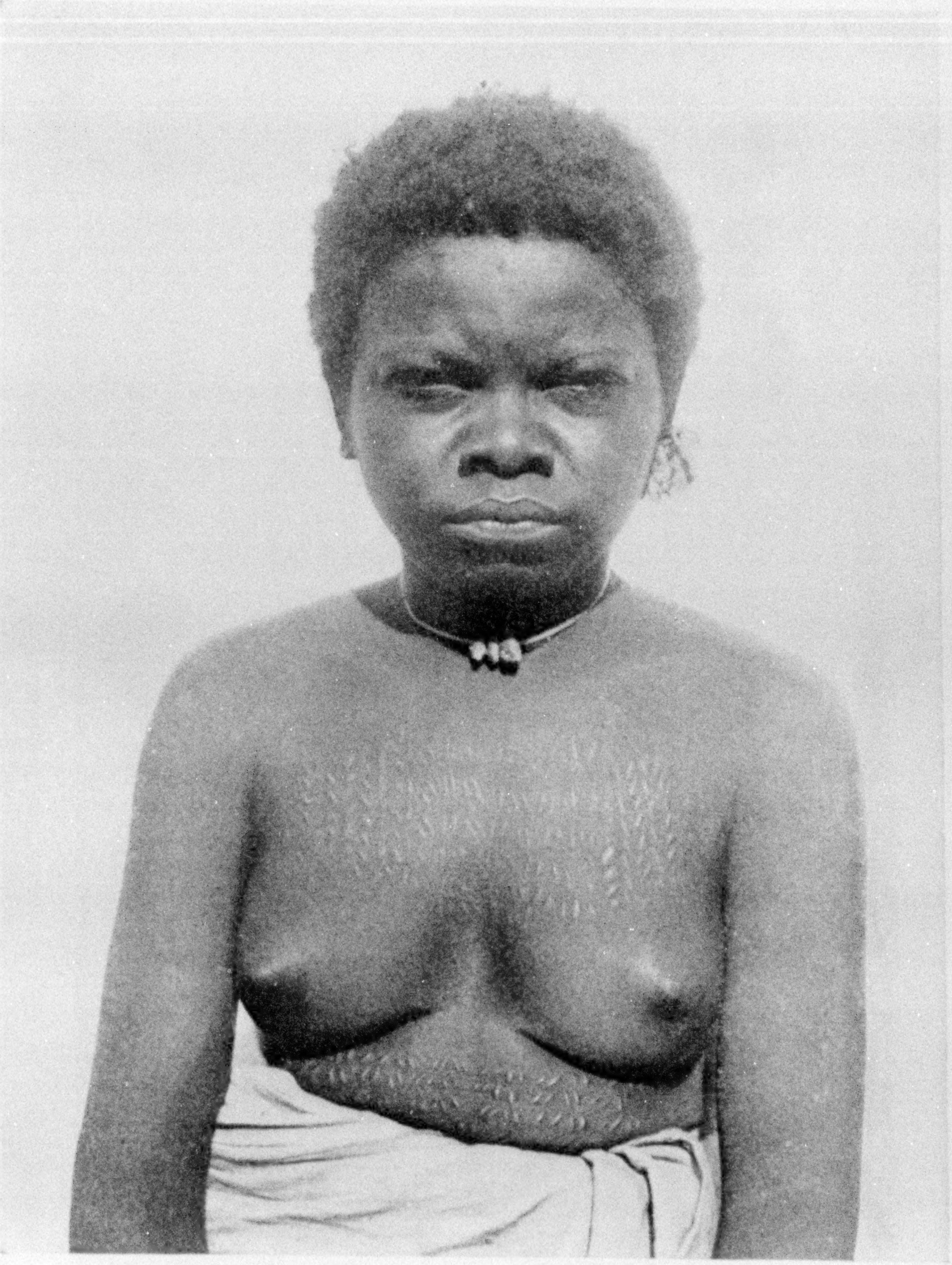
in this custom. Indeed, they are more feared by their Christian neighbors than are the Ilongots.

HABITS OF THE NEGRITOS

The Negritos are generally considered to be the true aborigines of the Philippines, and are racially sharply distinct from the other numerous tribes of the Islands, except the Ilongots of Luzon, the Mangayans of Mindoro, and the Tagbanuas of Palawan, with whom they have intermarried to a considerable extent. They are of low, sometimes even dwarfish, stature, with very dark brown, or black, skins. Their heads are covered with closely curling hair and many of them have abundant woolly beards. They often have so-called "pepper-corn" hairs distributed very abundantly over their bodies. Their noses are broad and flat, their lips thick, their arms disproportionately long.

They do not tattoo their bodies, but ornament them with scar patterns, produced by cutting through the skin with sharp pieces of bamboo and rubbing dirt into the wounds thus formed in order to infect them and make good big scars! In this respect they differ from all other wild peoples in the Philippines and agree with the dwarfs of Africa, whose scar patterns, as shown by photographs which have been reproduced in the NATIONAL GEOGRAPHIC MAGAZINE, are, in some instances at least, practically identical with those in vogue among the Philippine Negritos (see pages 838, 839).

The men wear small clouts, and the women short skirts reaching from the waist to the knee. They are very fond of brightly colored cloth, scarlet being preferred, but individuals who cannot get cloth, and there are many such, use instead the so-called "bark cloth" so widely employed by inhabitants of the



A NEGRITO WOMAN

Note the ornamental scar patterns. In her left ear she has medicine for a headache, and around her neck hangs medicine for a sore throat.

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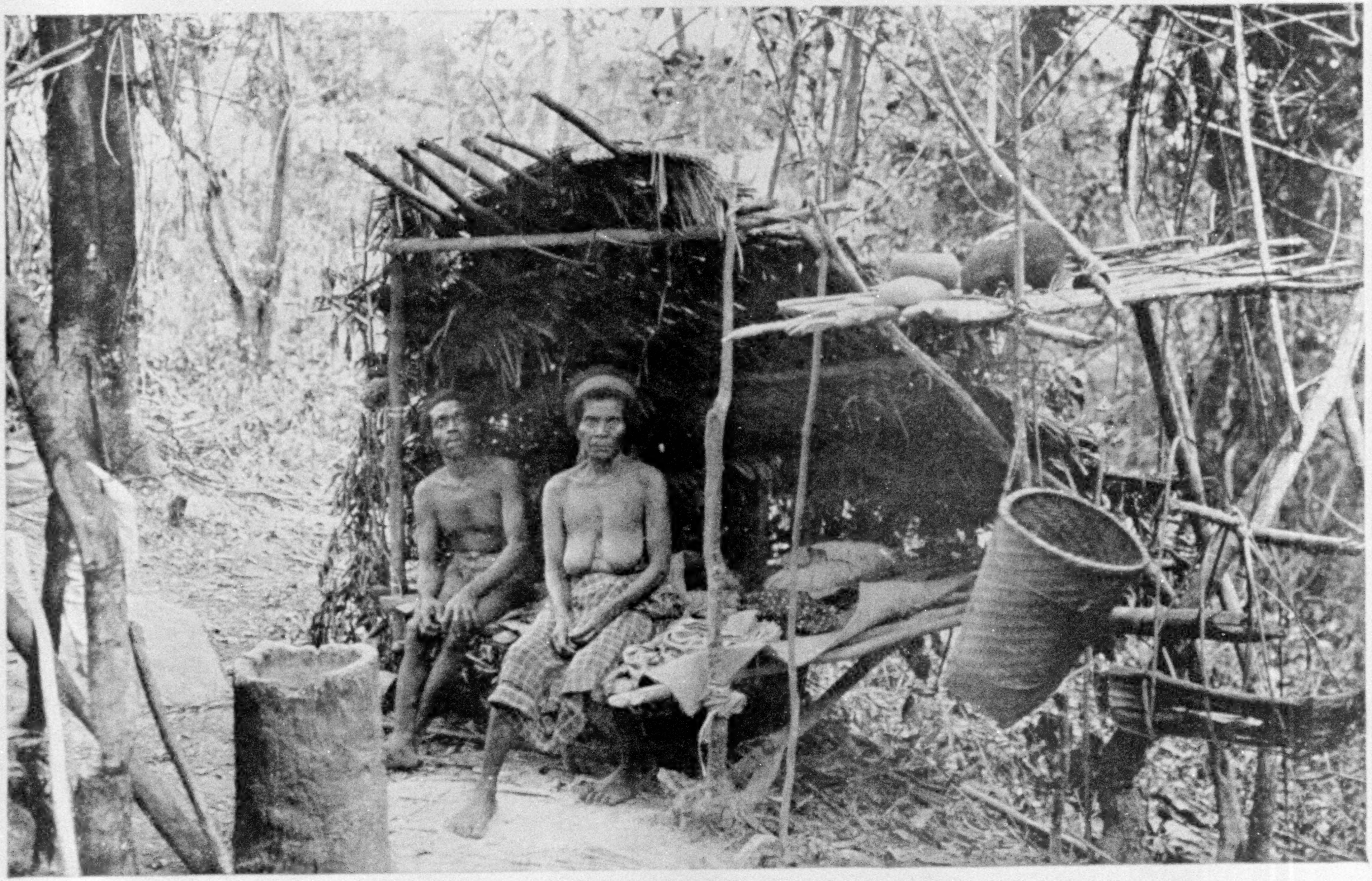

TWO NEGRITOS WITH THEIR HOUSE AND BELONGINGS

This photograph was taken in Bataan Province, Luzon, where the Negritos have come much in contact with the Tagalogs, and as a rule build exceptionally good houses

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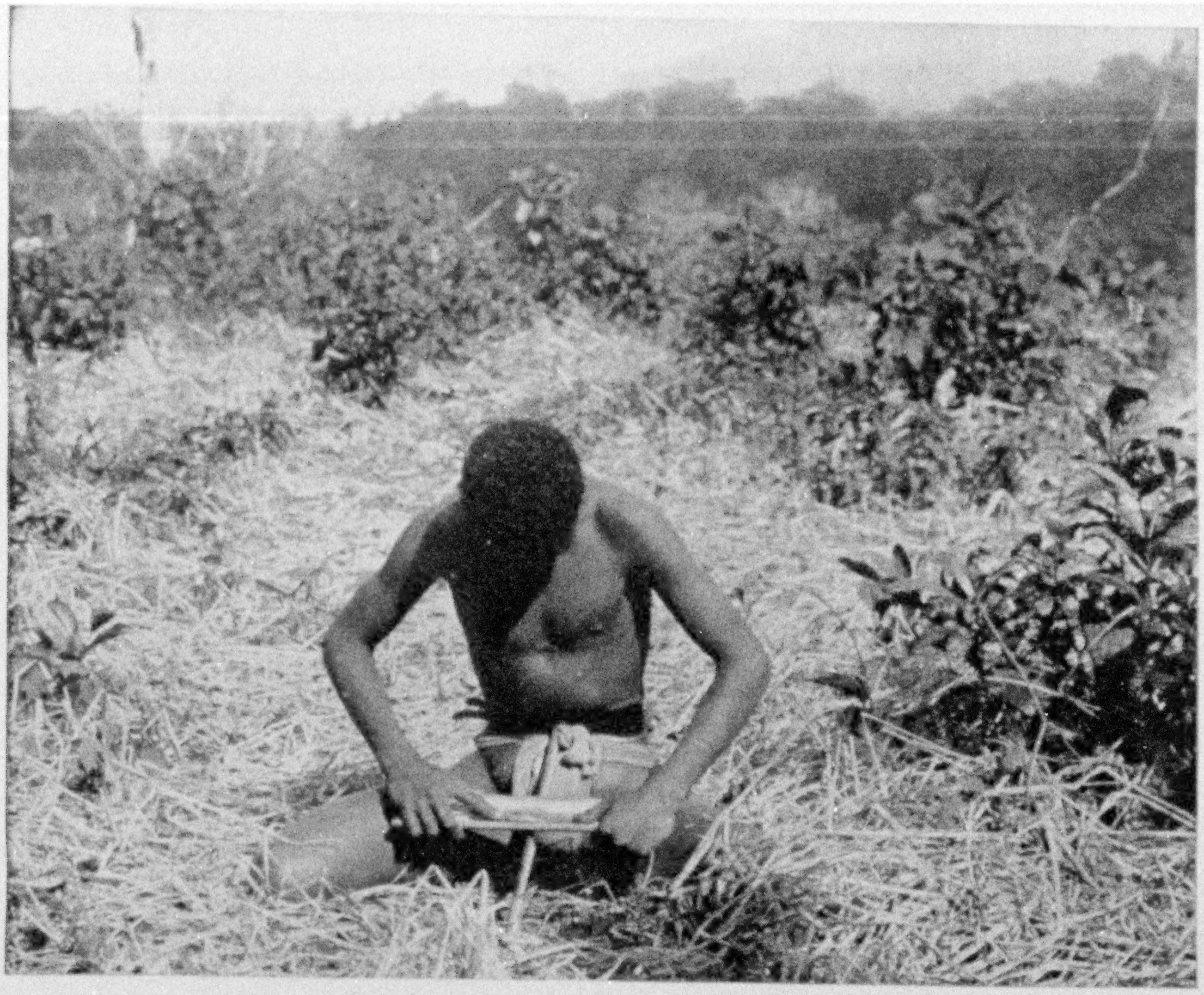


A NEGRITO MAKING FIRE BY RUBBING PIECES OF BAMBOO TOGETHER

islands of the Pacific. Men frequently shave the crowns of their heads "in order to let the heat *out*"!

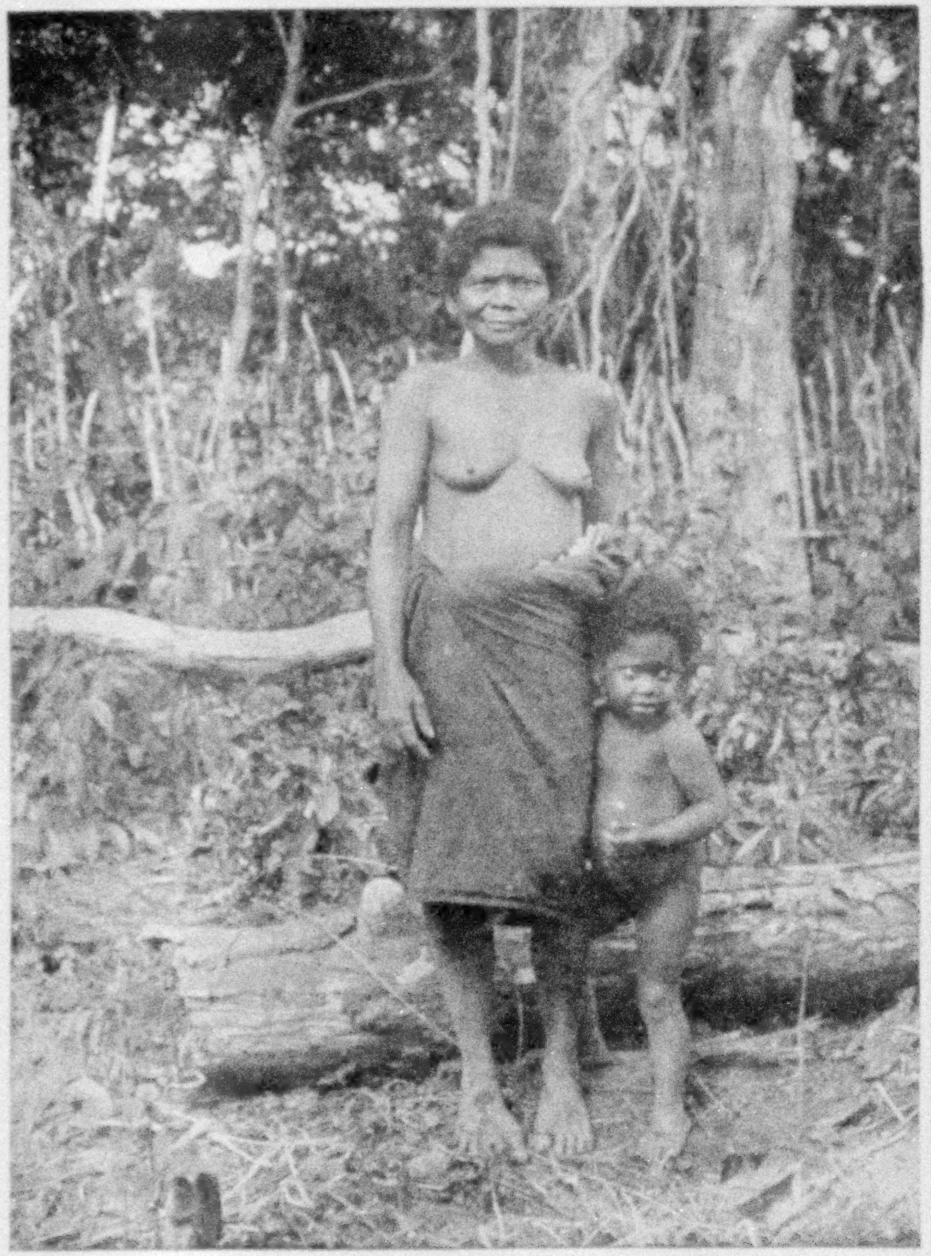
CONSTRUCTION AND CONTENTS OF HOUSES

The tiny settlements which we visited were abandoned very hastily, but it was easy to obtain complete inventories of the property of their owners, which, even to the bows and arrows, was often left behind. The "houses" were constructed by covering small rectangular frameworks of poles with a thin thatch of rattan leaves or grass. Each shelter thus made was inclined toward the sun, or wind or rain, and was held in a slanting position by a stick sharpened at one end and forked at the other, the sharpened end being pushed into the ground and the forked end placed against the shelter at or near its central point (see page 837).

The smallest of these structures measured about four feet by five, the largest some eight feet by six. Hanging from them, or placed under them, were a few cocoanut shells; an occasional earthen pot, usually broken; fish lines equipped with stone sinkers and with bone or steel hooks; an occasional small casting net; a few bits of bark cloth; bows of *Palma brava;* arrows with heads of *Palma brava,* bamboo, or, more rarely, of steel; a few rude *bolos;* scraps of cheap cotton cloth, and nothing more!

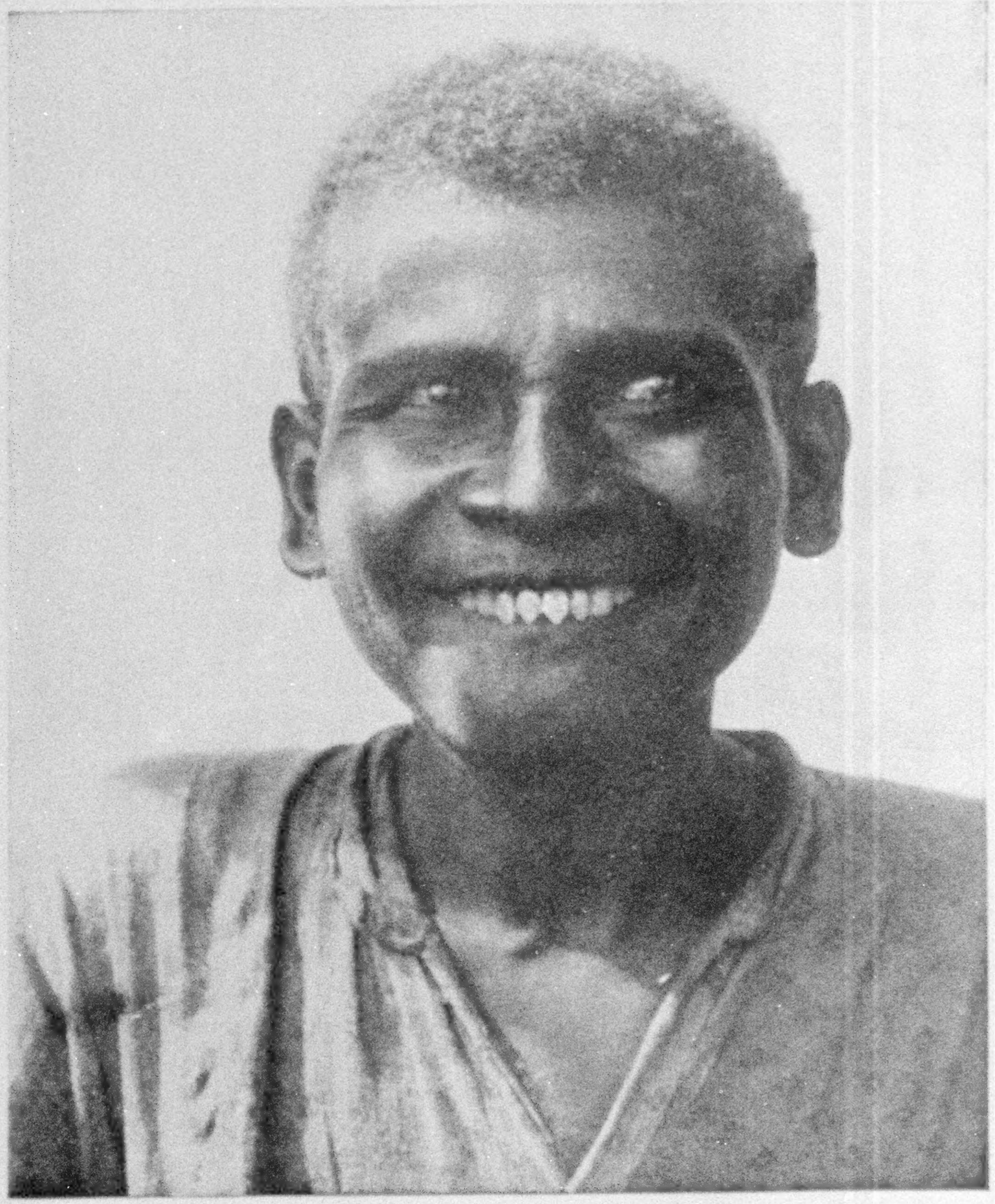
The domestic animals were dogs—which, strangely enough, neither objected to our approach nor got out of our way—and a few wild chickens, partially domesticated.

The Negritos told us that during the rainy season they went back into the mountains, where they sometimes planted yams, upland rice, or corn; but that evil spirits often obliged them to abandon their plantings before harvest time! Throughout the year they subsist chiefly on vegetable products, which they obtain from the virgin forest, and on fish and game. They are wonderful woodsmen and display great skill in taking fish and game and in still-hunting their enemies; but here their proficiency ends. They



A NEGRITO MOTHER AND CHILD IN THEIR NATIVE WILD

The boy was unafraid and evidently watching for the birdie to jump out of the camera



A NEGRITO WHO, LIKE MANY OF HIS TRIBE, HAS POINTED HIS FRONT TEETH

This is done by chipping off both corners with the aid of a small piece of wood and a bolo (see page 847)

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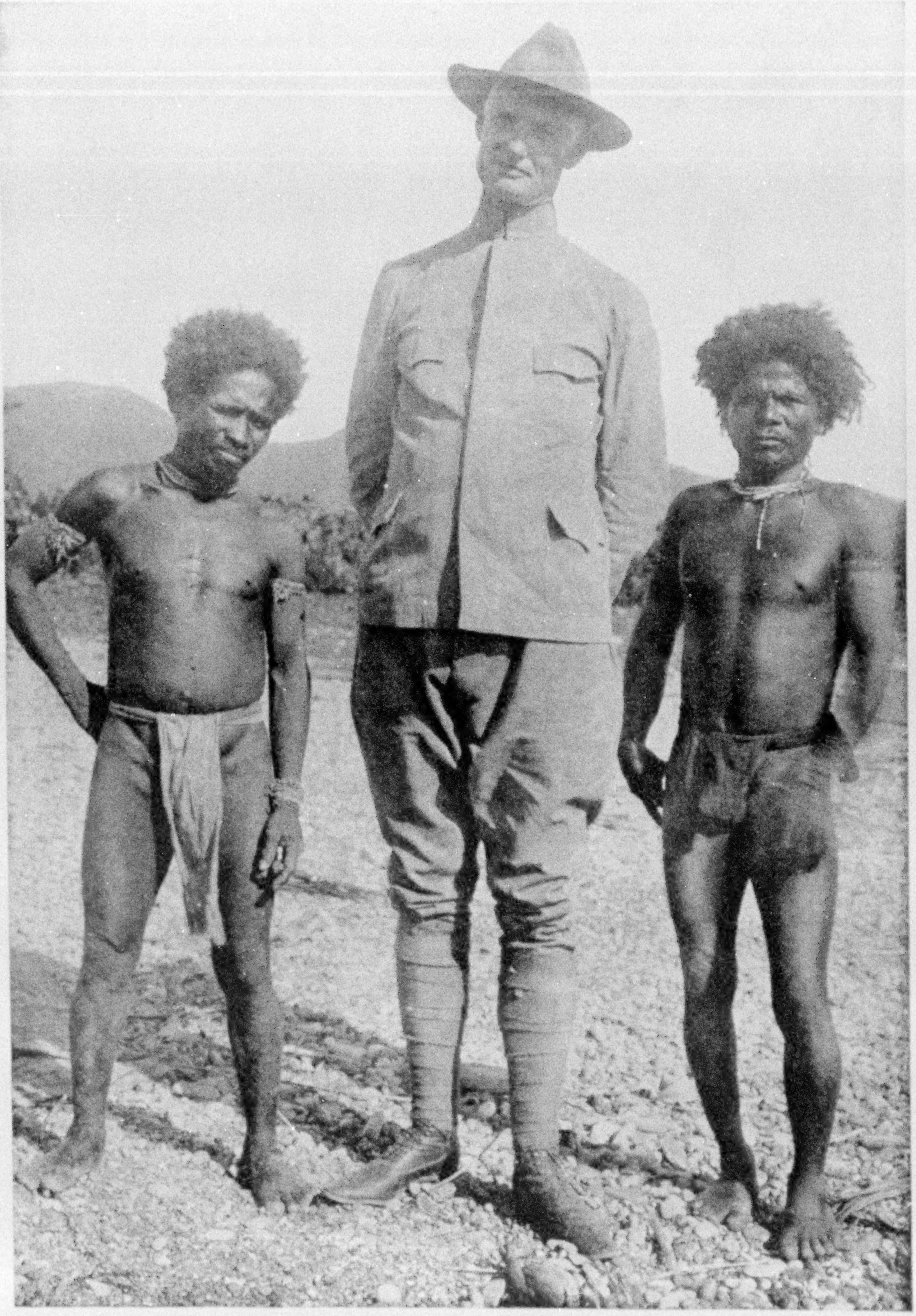
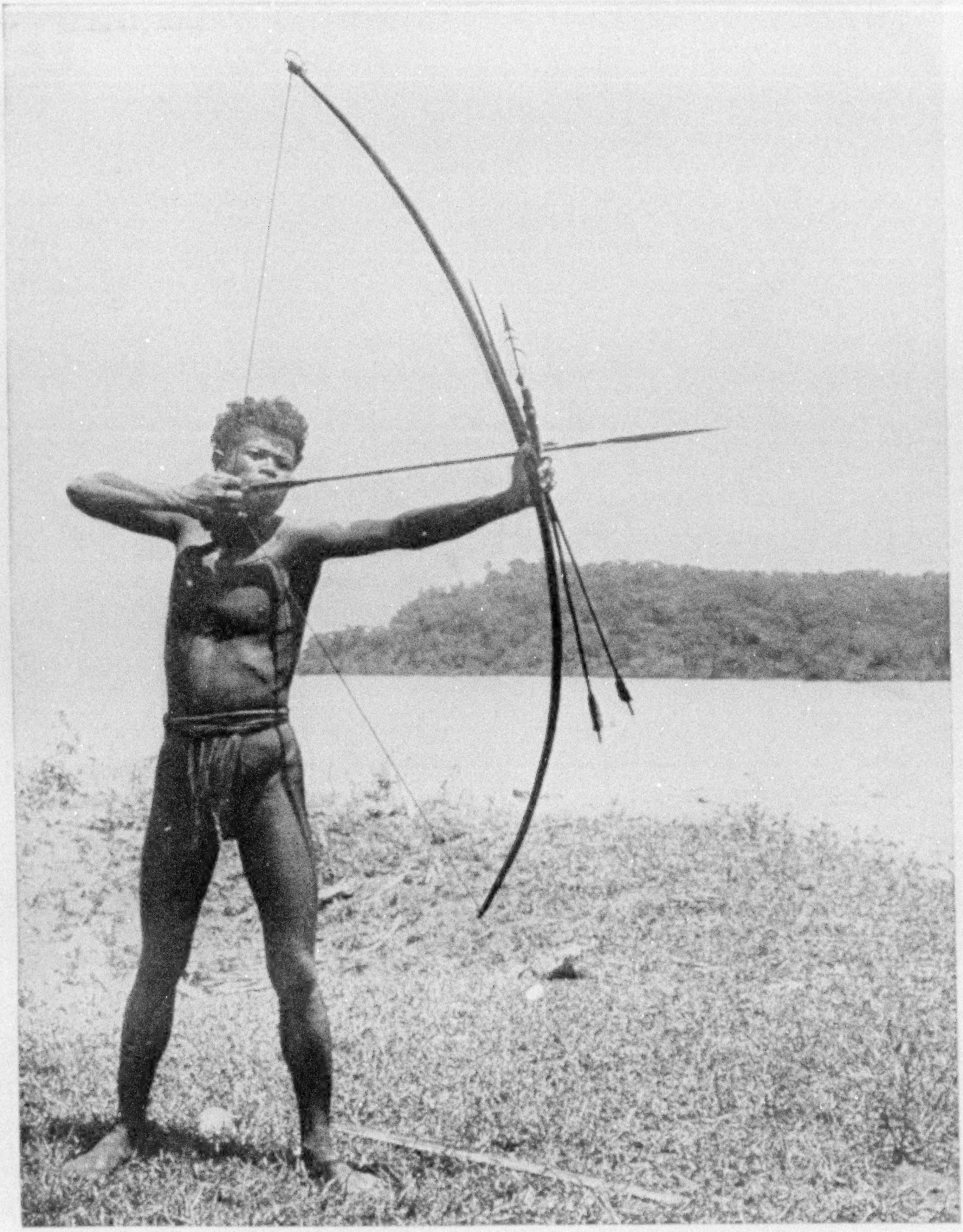


TWO NEGRITO MEN

With Governor William F. Pack of the Mountain Province. Photograph taken on the northeast coast of Luzon, near Palanan



NEGRITO BOWMAN

The Negritos are the bow and arrow men of the Philippines. Many of them shoot arrows with great accuracy, and some of them have even been known to bring down birds on the wing (see page 837).

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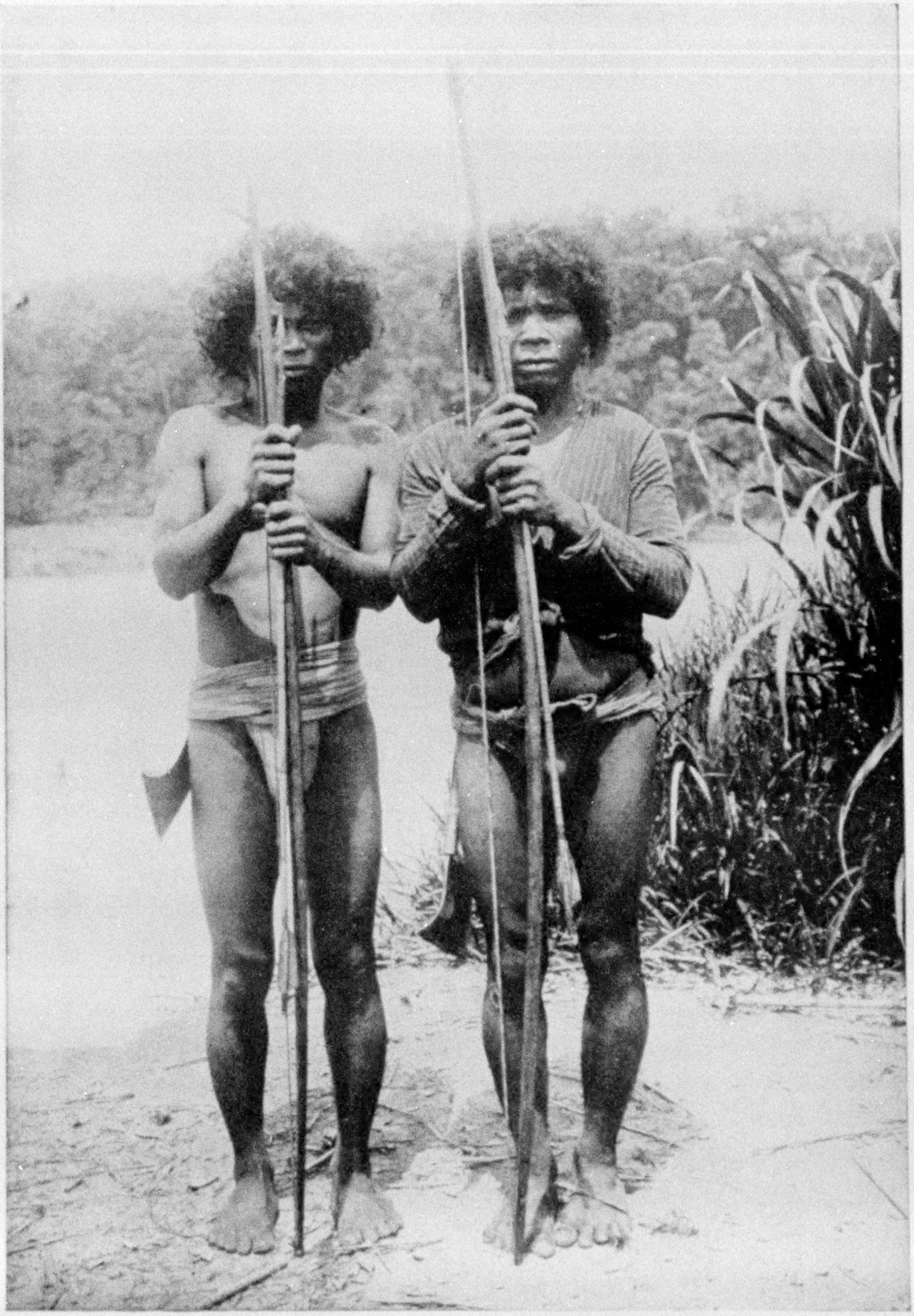

NEGRITO MEN WITH BOWS, ARROWS, AND HEADAXES READY FOR THE TRAIL

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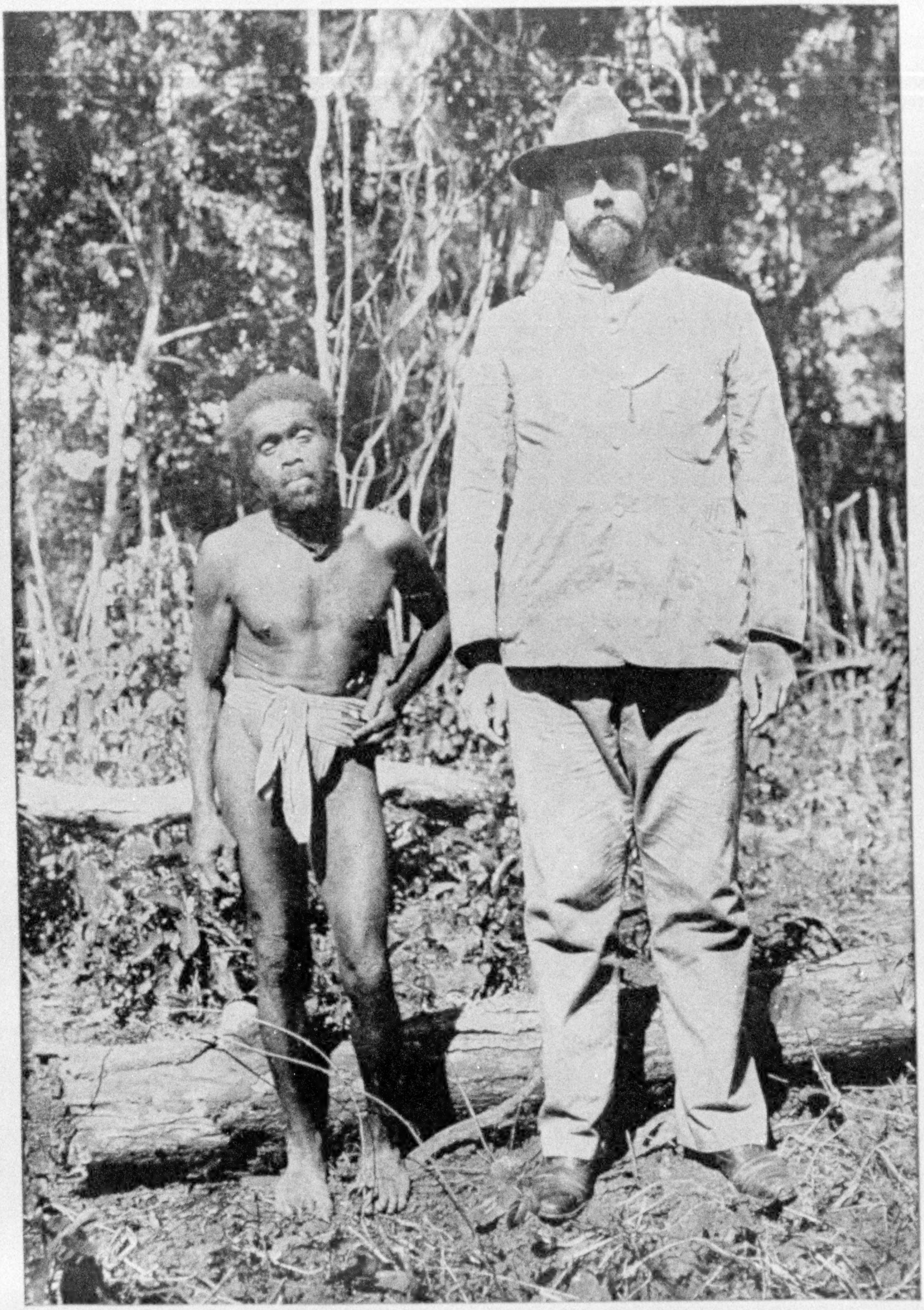


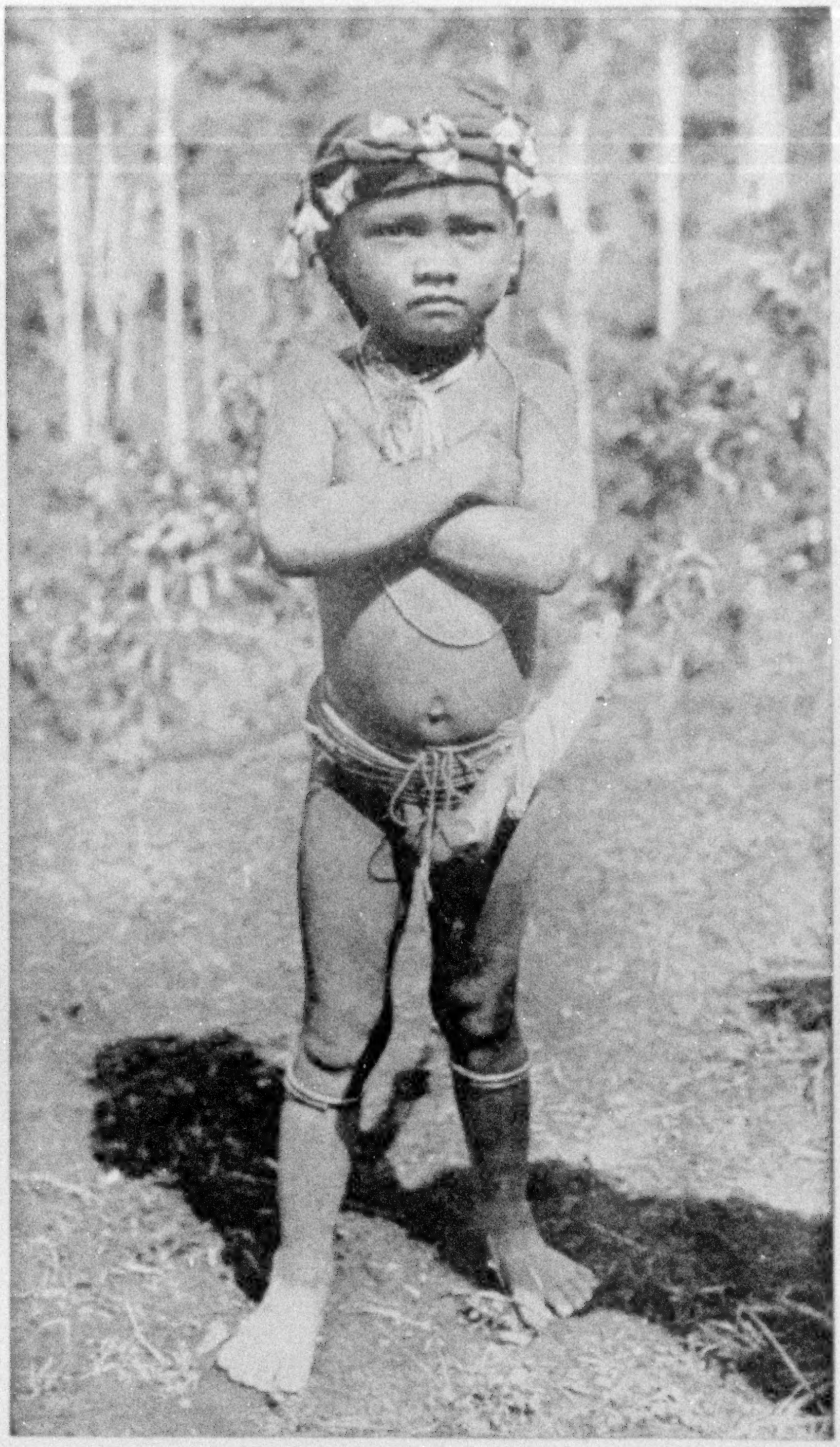
A TYPICAL NEGRITO MAN WITH SECRETARY WORCESTER

This photograph shows the relative size of the Negritos compared with a 6-foot American are good at nothing else, and their intelligence is of an exceptionally low order.

In other parts of the Philippines where Negritos have come more in contact with civilized natives, I have found them building larger huts, and, in rare instances, they even construct small houses, which approach more or less closely the poorer class dwellings of their Filipino neighbors. In the Cagayan Valley and in the province of Bataan, Negritos have been known to cultivate land in corn and rice for several successive years; but they are essentially a wild and nomadic people and every effort thus far put forth, by Spaniards or Americans, to educate them or materially to better their condition in any other way, save by protecting them from harsh treatment at the hands of their civilized neighbors, has resulted in complete failure.

TEETH CHIPPING

Many of the Negritos point their front teeth, but *not* by filing them, as is commonly supposed. A chip of wood is held behind the tooth to be operated upon; the point of a bolo is placed in such a position as to slant across the corner of tooth to be removed, and a sharp blow on the bolo chips a piece from the tooth. The opposite corner is similarly operated upon, and an artistic point is thus produced (p. 842)!



AN ILONGOT BOY

The coming generation is more promising than the present one, but even the children carry weapons

The music and dancing of the Negritos are especially interesting. Many of them know how to make and to play both the bamboo nose-flute and a kind of jews'-harp made from bamboo. Some of them use crude stringed instruments fashioned from single joints of bamboo, the strings being cut from the outer layer of wood, to which their ends remain attached, and being raised up by means of "bridges." The distribution of the several kinds of musical instruments above mentioned is more or less local, but the bronze tom-tom, or "gansa," is in universal use, although some Negritos play it with a drumstick, while others beat it with their hands. Many of their dances are pantomimic. Their singing is often weird in the extreme. It would be idle to attempt to describe it; only phonographic records could do it partial justice (see page 834).

DANCES

There are many stories current to the effect that Negritos are often to be met

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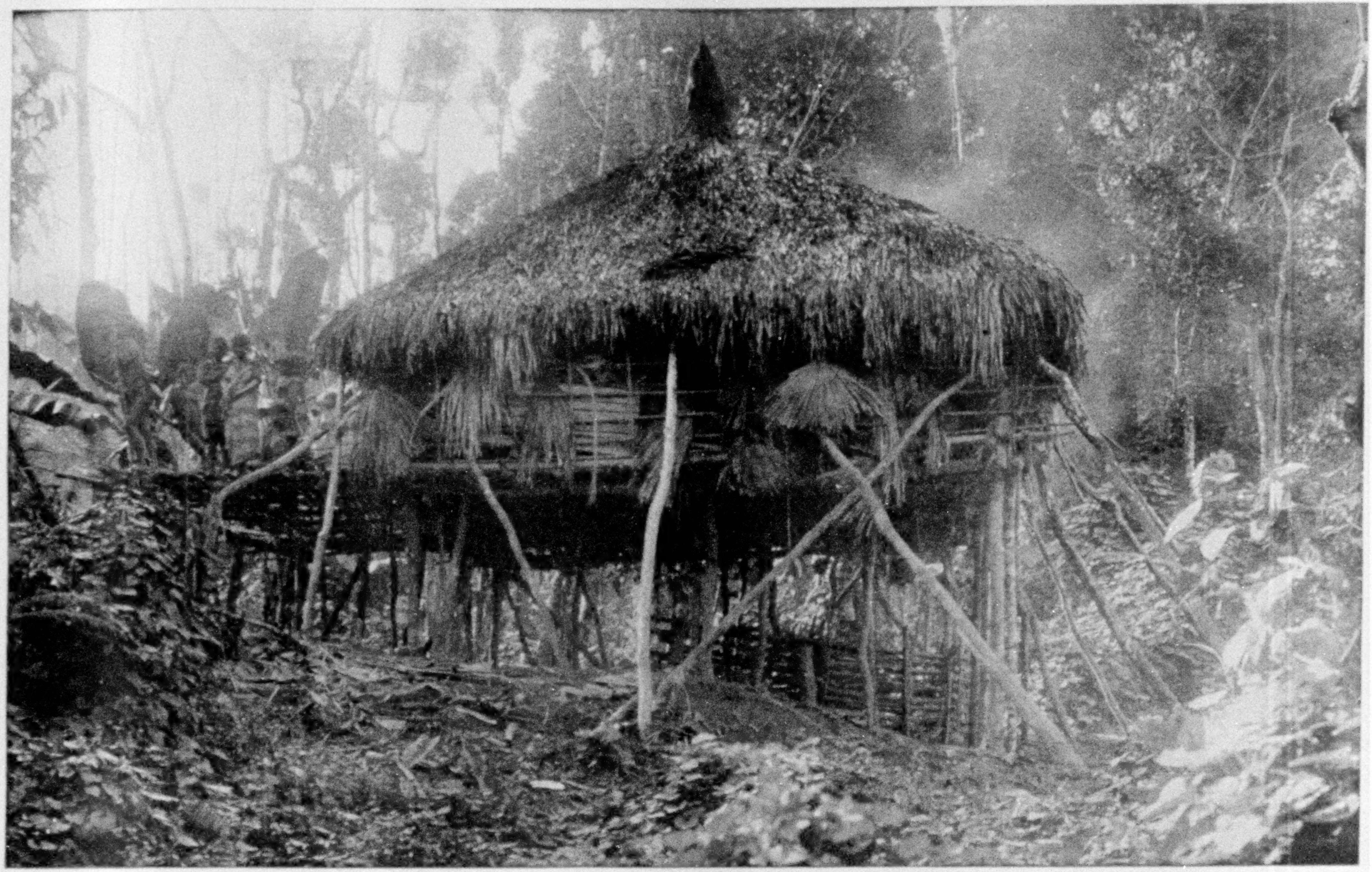


AN ILONGOT HOUSE (SEE TEXT, PAGE 862)

They occasionally build quite large and well-constructed houses, to which access is had by means of notched tree trunks

XUM

with wandering through the forest in a state of absolute nudity, and that they indulge in various obscene dances. I am satisfied that the former series of tales are without foundation in fact. Objectionable dances are very rare among the wild peoples of the Philippines, although they are sometimes indulged in by the Moros, and are common among the Manobos of Mindanao. One apparently credible witness, who was a surgeon in the United States Army, informed me that he had once witnessed such a dance among Negritos in the wildest part of the Zambales Mountains. I have never observed anything of the sort, nor do I believe that such dances occur with any degree of frequency among these peoples.

The number of Negritos in the Philippines can hardly exceed 25,000, and it is constantly diminishing from purely natural causes. In many regions their birth rate is known to be materially below their death rate, and in my opinion they must be regarded as a "link" which is not now missing, but soon will be. Within my own recollection they have disappeared from Cebu, Masbate, and Sibuyan. At last accounts but 14 individuals remained in Tablas, where they were formerly numerous.

NOT TREE-DWELLERS

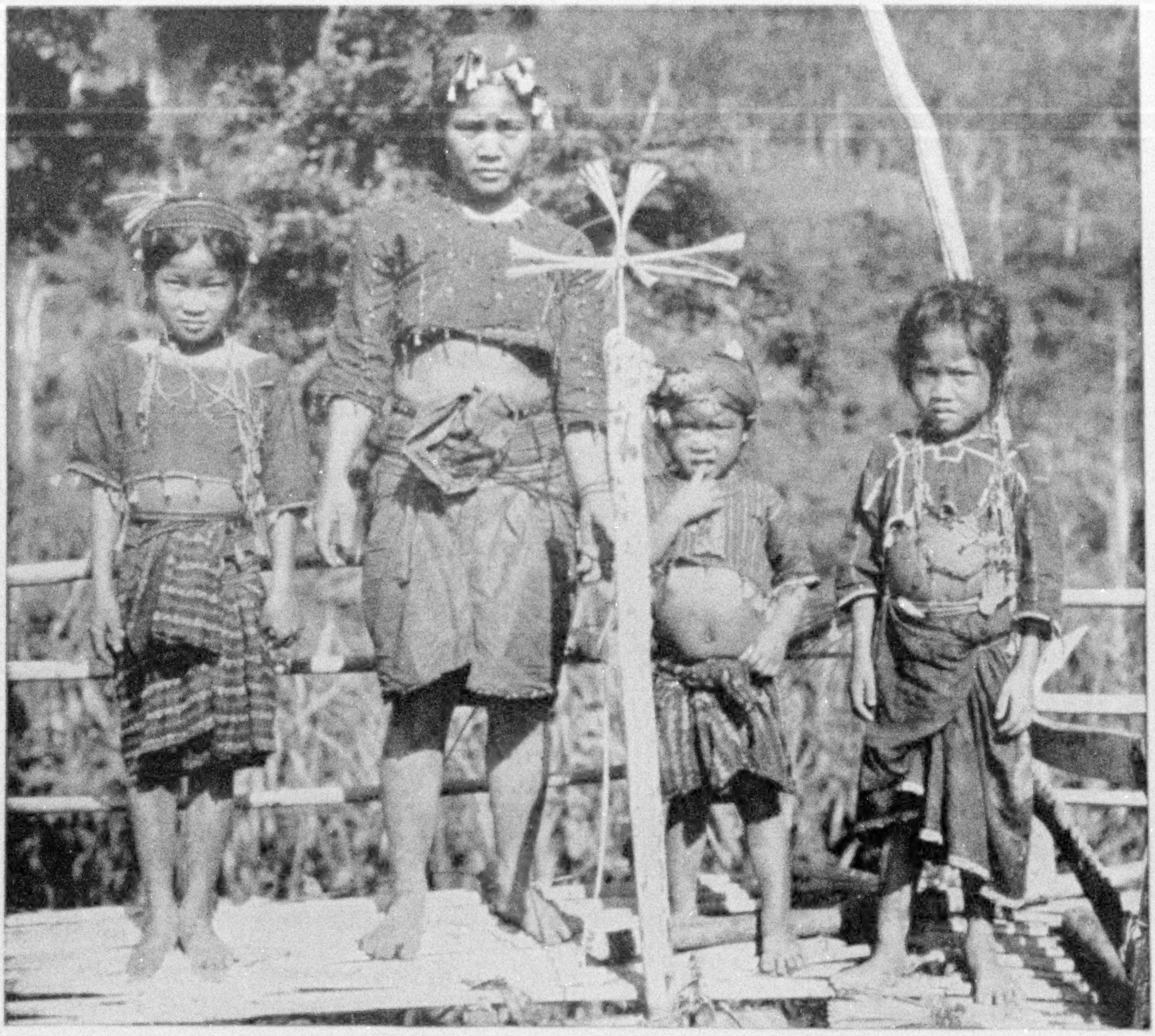
Statements to the effect that Negritos build houses in trees are, so far as my personal observation and information go, without foundation in fact.

Curiously enough, the head-hunting peoples of the Philippines are apparently limited to northern Luzon. None of the warlike hill tribes inhabiting other parts of the archipelago are known to take the heads of their victims.

The explanation of their head-hunting customs which is given by the Negritos of northeastern Luzon is very simple. They believe that each family must take at least one head per year or suffer misfortune in the form of sickness, wounds, starvation, or death. Their victims are always beheaded with bolos. Heads are buried in the ground under the "houses" of the men who take them. Plates, or ollas, are placed over the spots where the heads are buried, and possibly contain offerings to evil spirits. The "houses" under which heads are buried are then

AN ILONGOT WOMAN

The typical dress is a short skirt, often of bark cloth, but they are very anxious to get real cloth whenever it is possible (see p. 857).



ILONGOT WOMAN AND GIRLS

The women embroider remarkably well, considering the low state of civilization, and display great ingenuity in fashioning elaborately constructed ornamental work (see page 857)

abandoned and their supposedly fortunate owners look forward to a period free from death, sickness, or injury, and to success in their hunting and fishing.

THE ILONGOTS

The Ilongots, sometimes called the Ilongotes, or Ibilaos, are numerically even less important than are the Negritos. Their number is not exactly known, but probably does not exceed 6,000.

They are forest dwellers in the strictest sense, living in small groups scattered through an enormous, heavily wooded area, which was originally divided between the provinces of Isabela, Nueva Vizcaya, Tayabas, and Pangasinan, but has lately been all incorporated with the province of Nueva Vizcaya, in order to bring the people of this troublesome tribe under one provincial administration.

While the Negritos are usually content to fight with each other and seldom molest outsiders, the Ilongots have waged war on their more civilized neighbors from the beginning of historic times. The latter have naturally reciprocated, with results disastrous to the Ilongots, whose territory formerly extended as far south as the Laguna de Bay, in immediate proximity to Manila.

In the northern part of their range the Ilongots come in close touch with the Negritos and freely intermarry with them. Among the people of this section of the tribe Negrito blood is naturally

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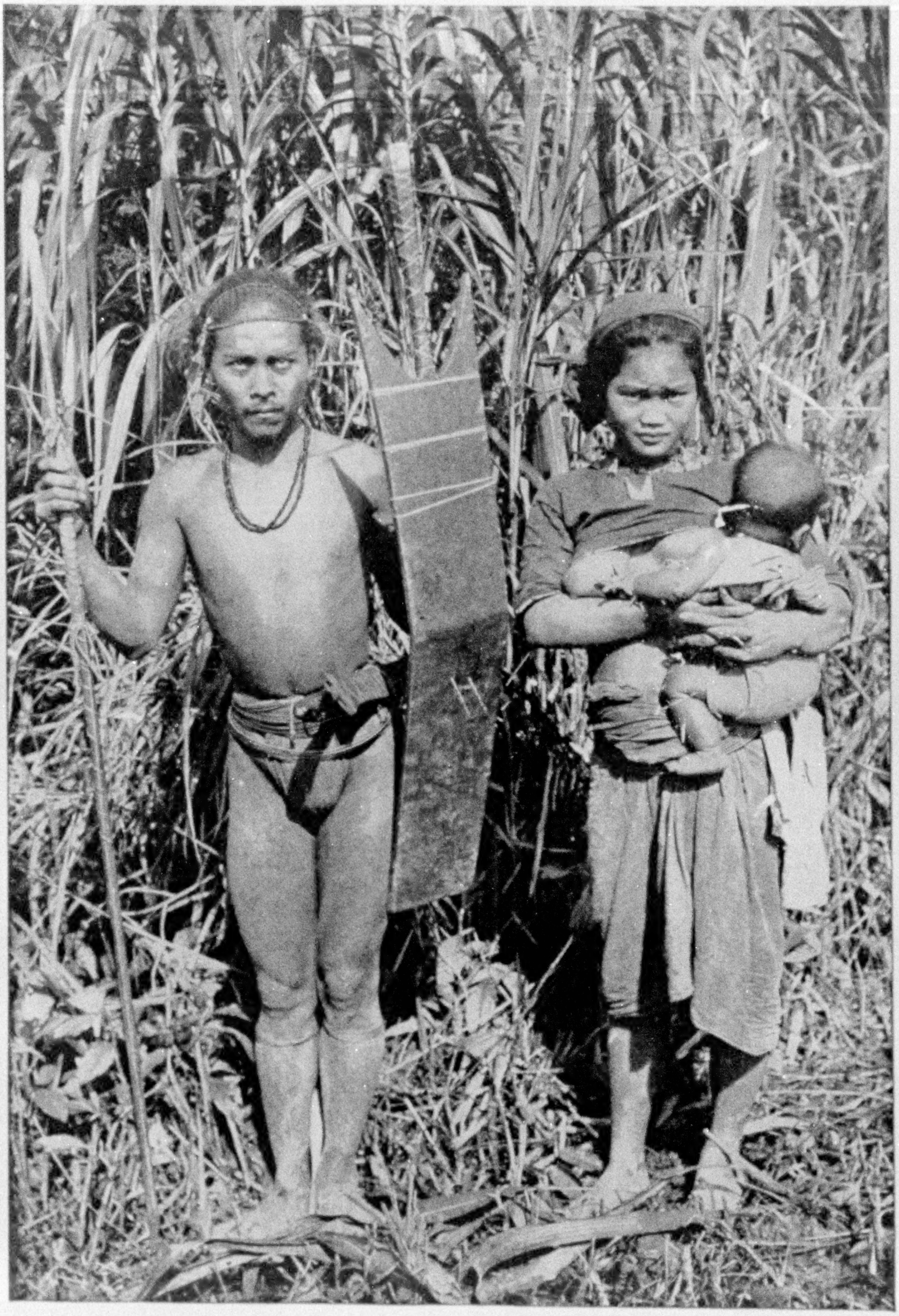

AN ILONGOT FAMILY

Note the peculiarly shaped shield and the lance with spiral wrappings. In the use of the shield they differ from the Negrito, who have none, but like them are nomadic in disposition (see page 863).

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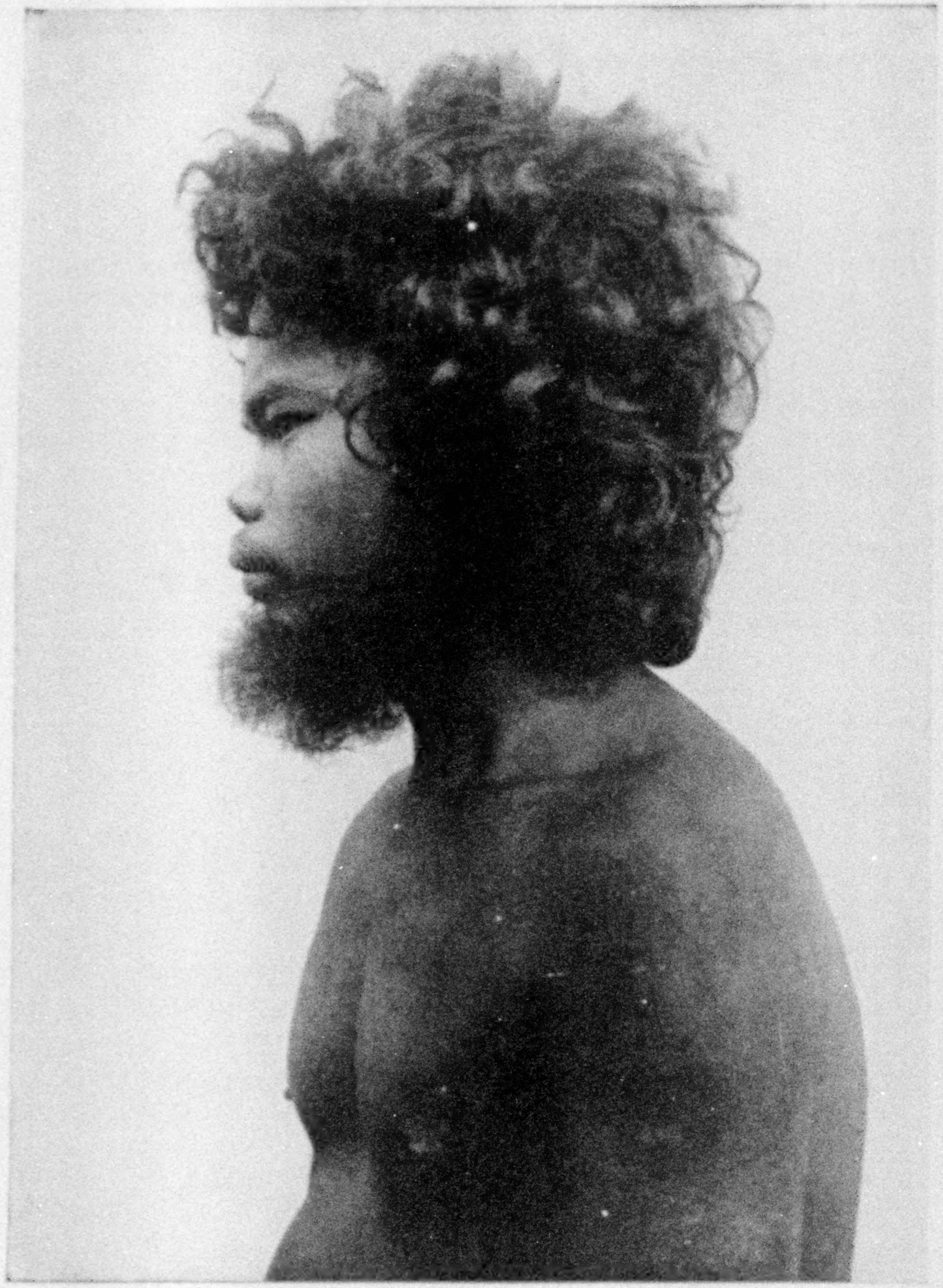
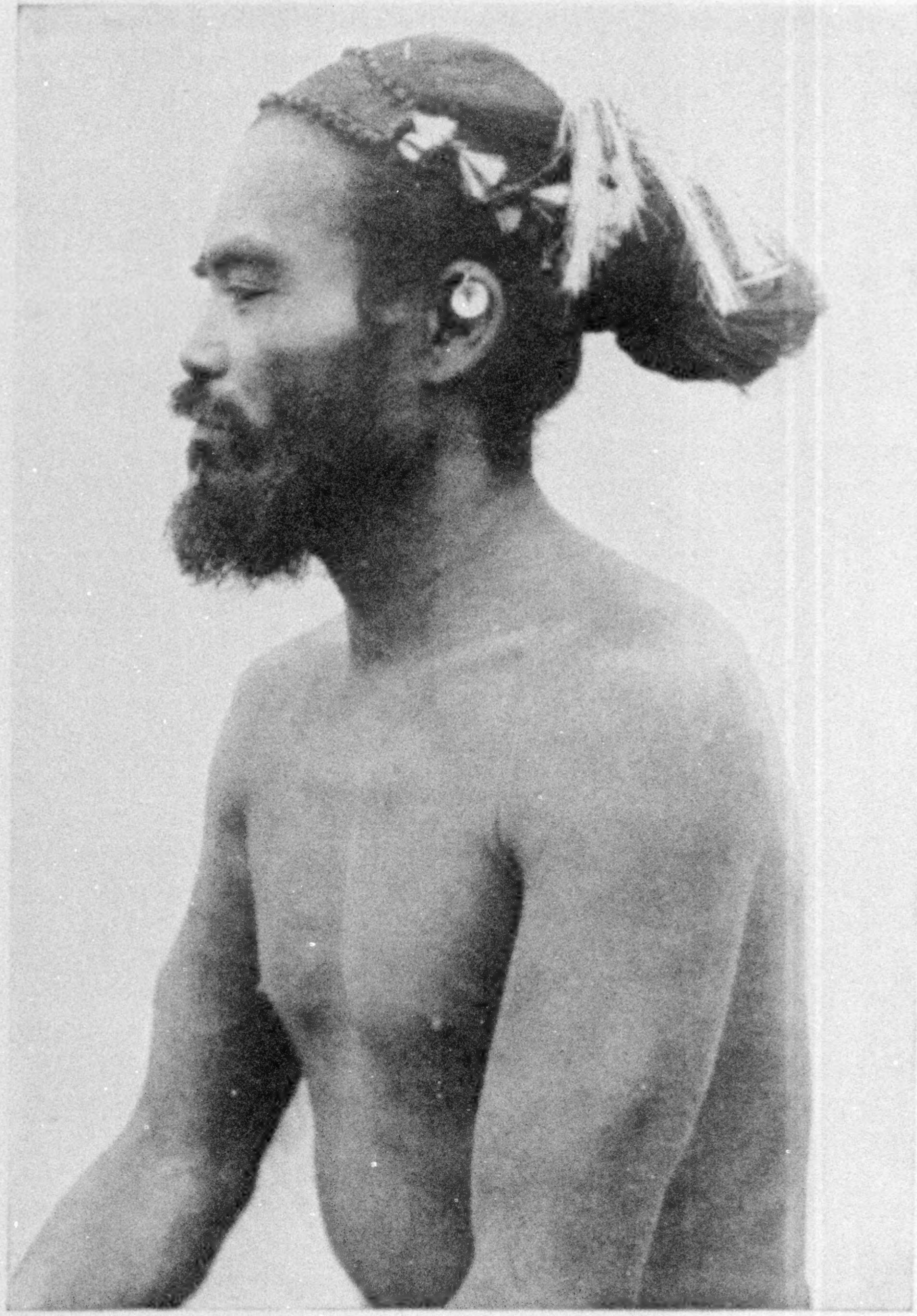


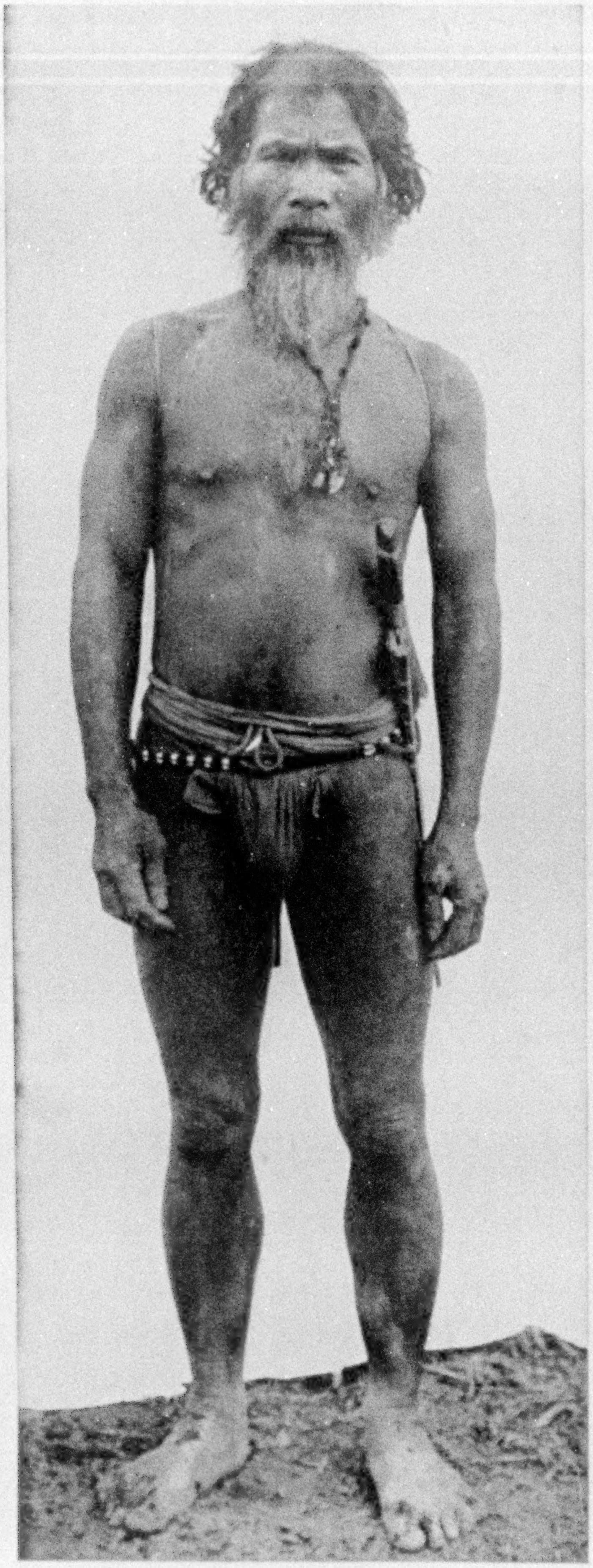
AN ILONGOT HEADHUNTER

Curly hair and heavy beards are frequently met with among the Ilongots, and it is commonly explained as being due to the presence of Negrito blood; however, not a few of this tribe seem to be typical Malays (see page 857).



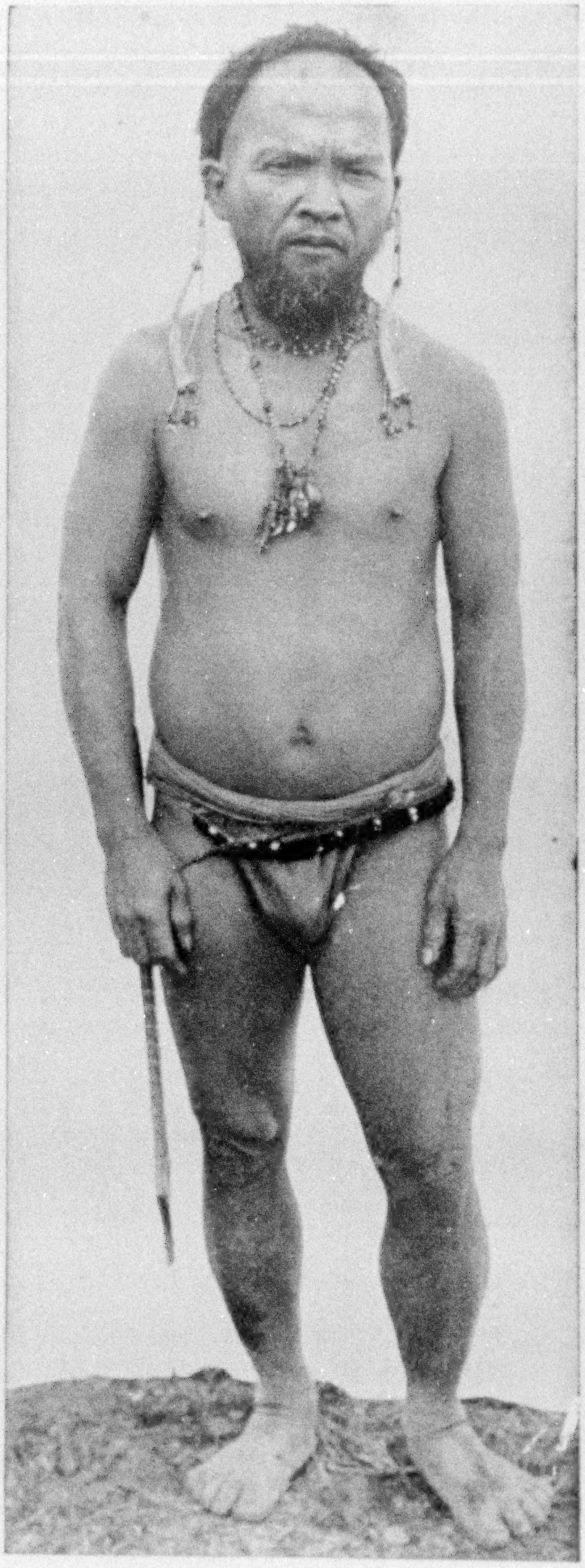
AN ILONGOT MAN

Showing typical head dress and ear ornament. The men tie up their hair in a sort of chignon, extending horizontally from the back of the head (see page 860).



AN OLD ILONGOT MAN

Some of the old men of this tribe are very hairy, and at once call up in the mind the Ainus of Japan.



AN ILONGOT MAN

Wearing ear ornaments made from a bird's beak. They frequently shave their heads to "let the heat out" (see page 841).

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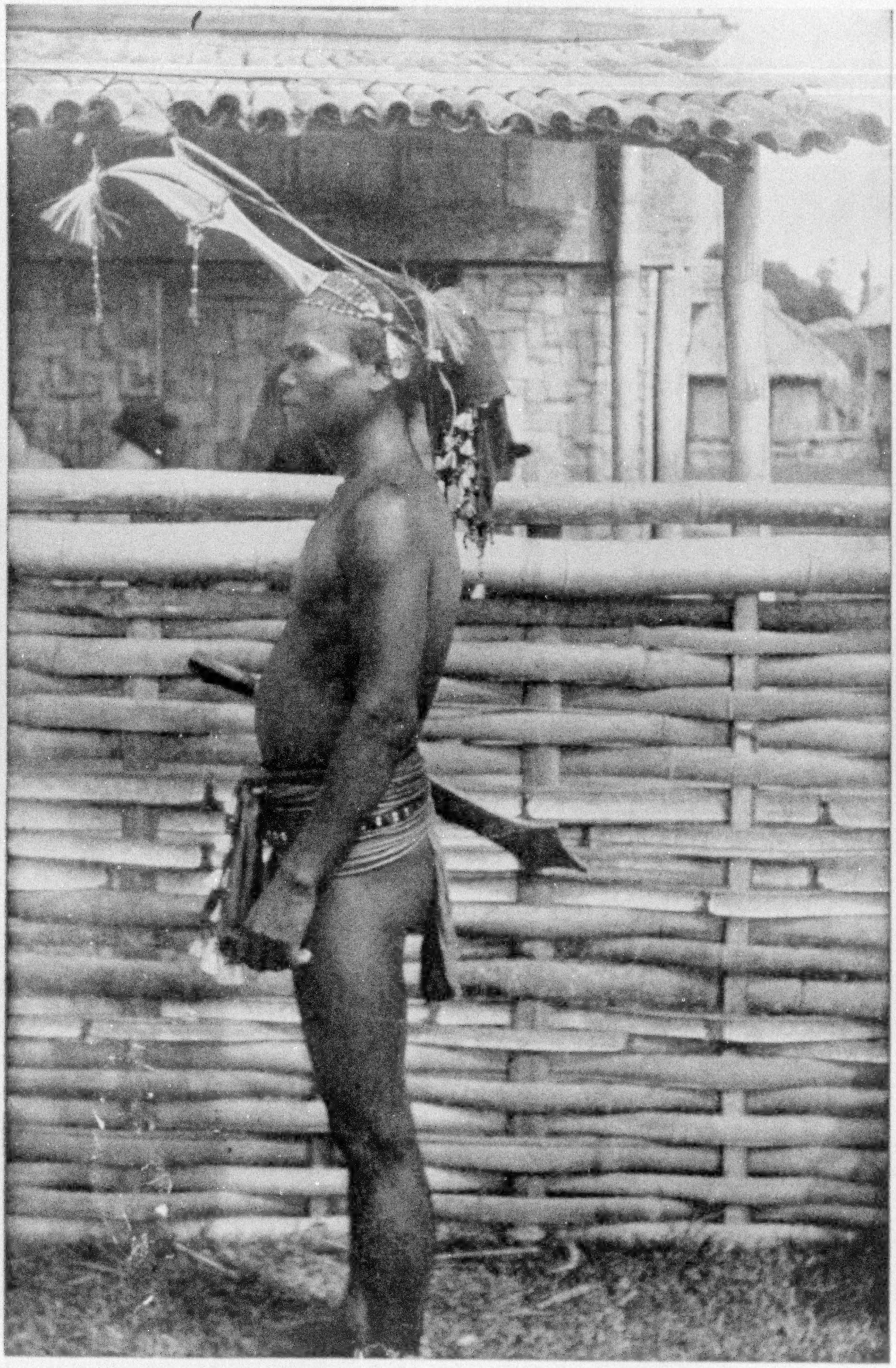

AN ILONGOT MAN SHOWING TYPICAL DRESS AND ORNAMENTS

Note the extraordinary ornament, fashioned from the beak of a hornbill, which he wears on his forehead (see page 858)

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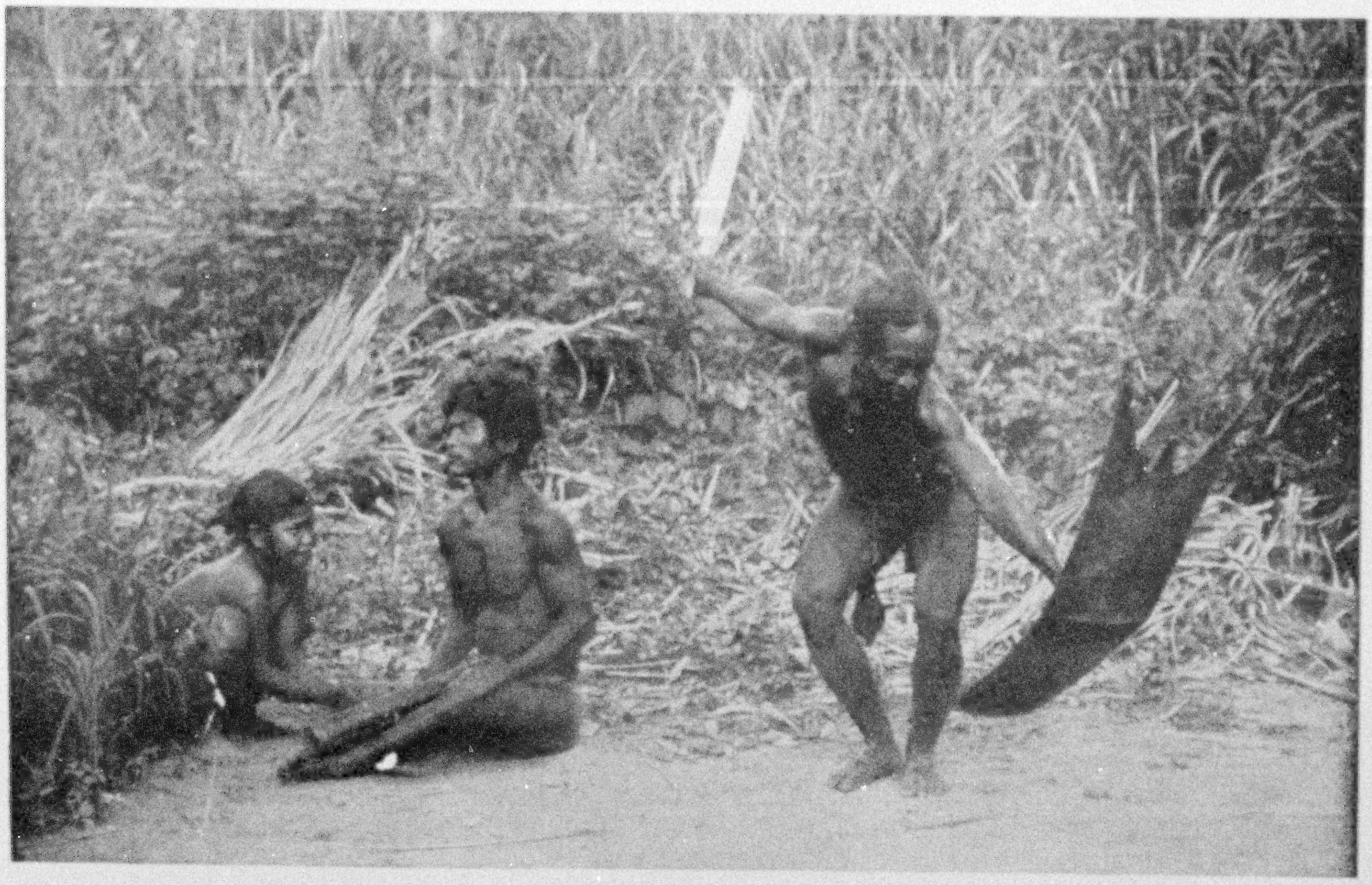
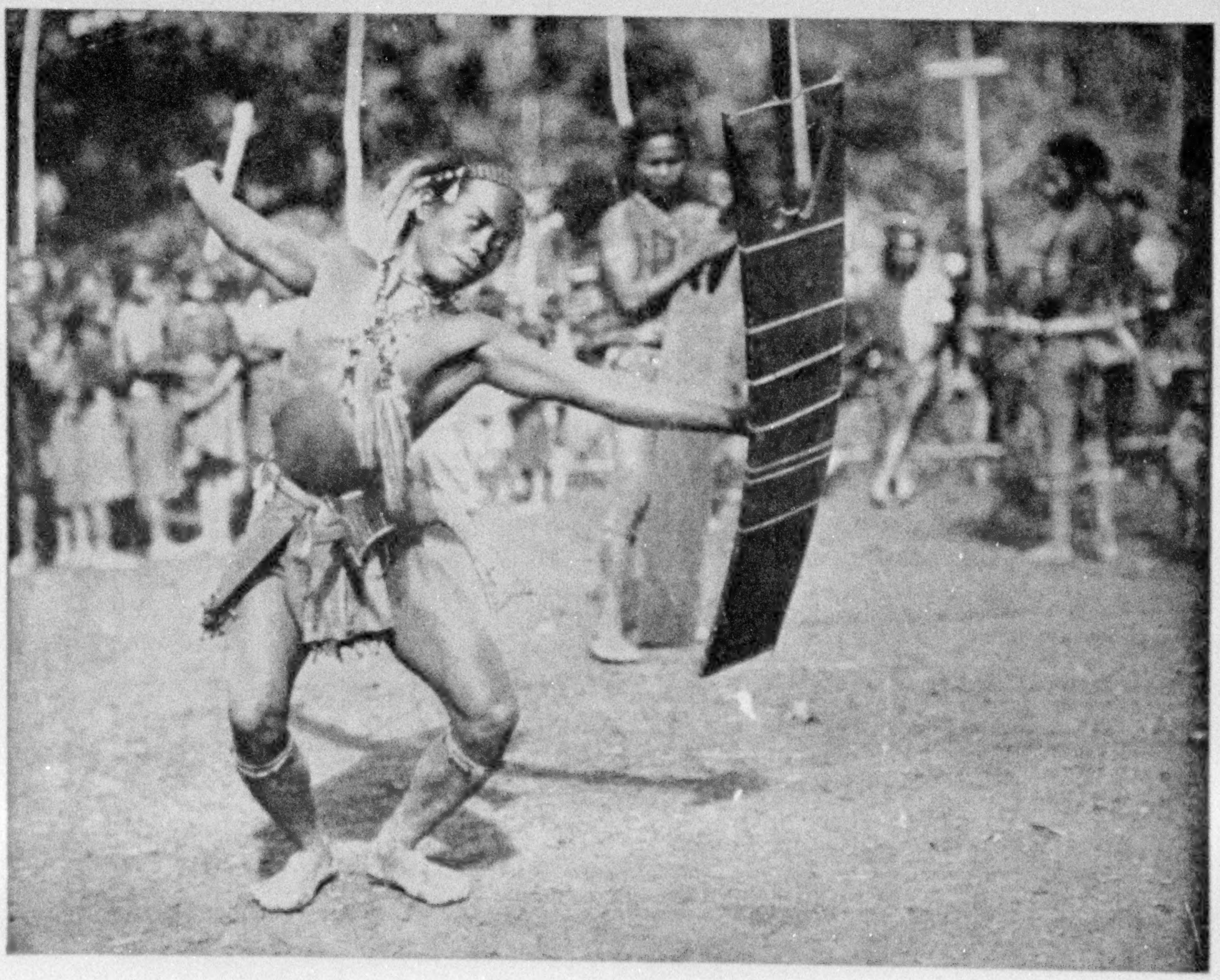


AN ILONGOT DANCING TO MUSIC

He is showing how he crept up on and killed his enemy. Note the broad knife which he brandishes



AN ILONGOT DANCING AND SHOWING TO AN ADMIRING THRONG HIS METHOD OF ATTACK

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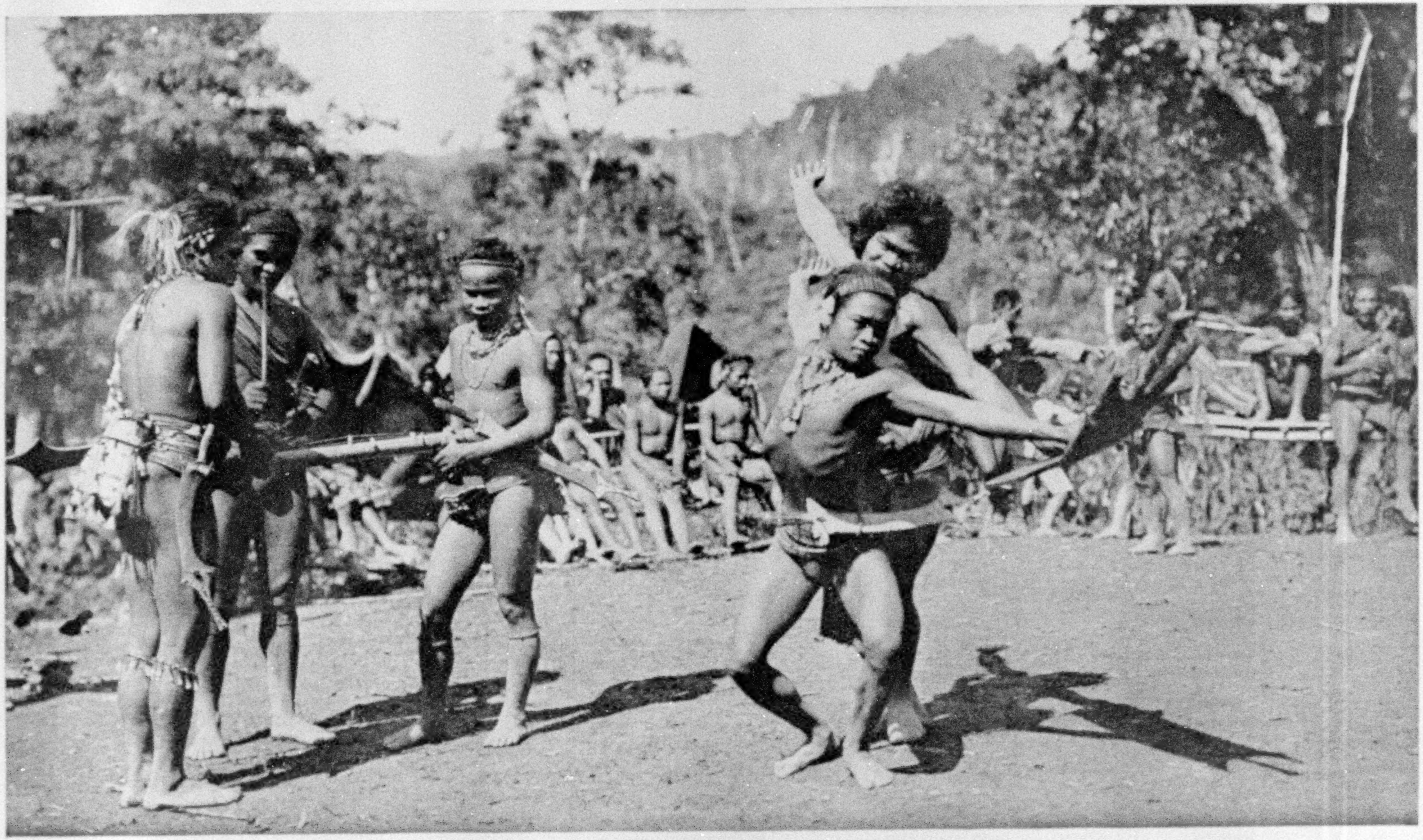
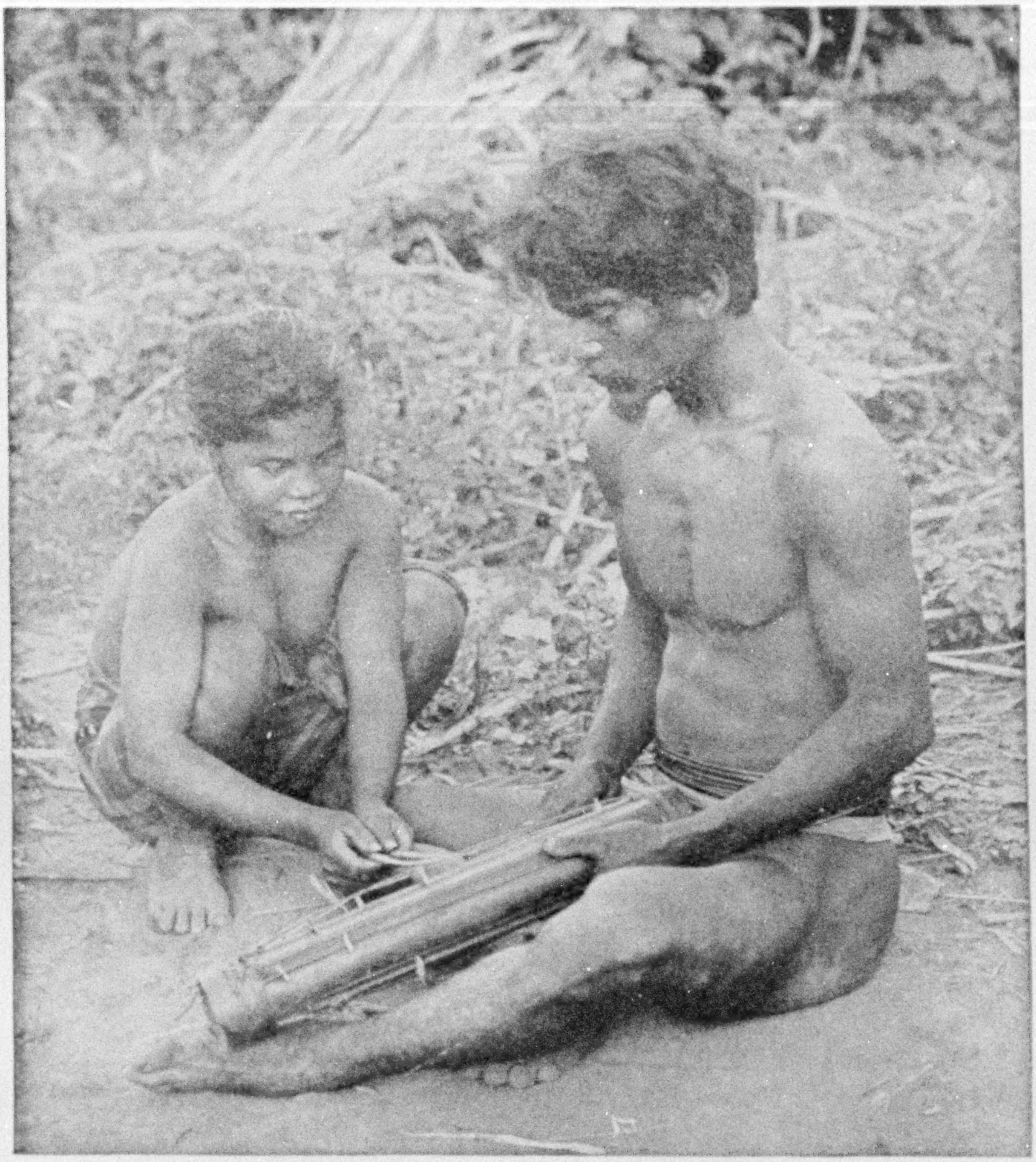


TWO ILONGOTS DANCING

The musicians at the left are playing on a stringed instrument fashioned from bamboo



MANY ILONGOTS ARE FOND OF MUSIC AND DEVELOP STRANGE AND WONDROUS SOUNDS FROM THEIR INSTRUMENTS

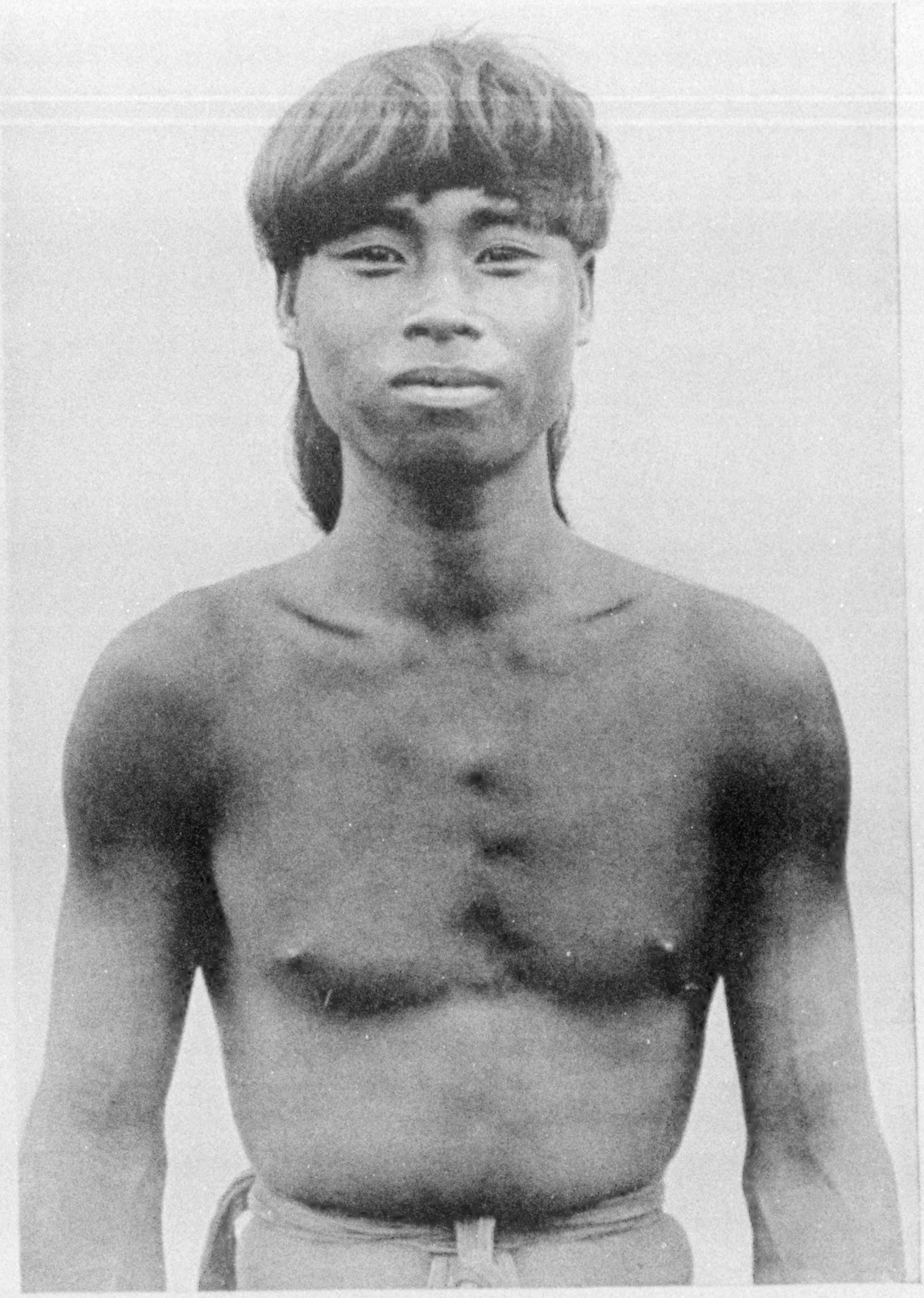
strongly in evidence. In fact, curly hair and heavy beards are frequently met with among the Ilongots wherever found, and these physical peculiarities are commonly explained as being due to the presence of Negrito blood. However, not a few of the members of this tribe seem to be typical Malays (see page 852).

Like the Negritos, the Ilongots use bows and arrows with great skill, but they also use light wooden shields of peculiar form, while the Negritos have none.

The typical dress of the men is a small clout, and that of the women is a short skirt, often of bark cloth. However, both men and women are anxious to get hold of the real article and lose no opportunity to do so (see page 849).

ARTISTIC WORK BY THEIR WOMEN

The women embroider remarkably well, considering the low stage of civilization to which they have attained, and both men and women display great ingenuity and skill in the fashioning of



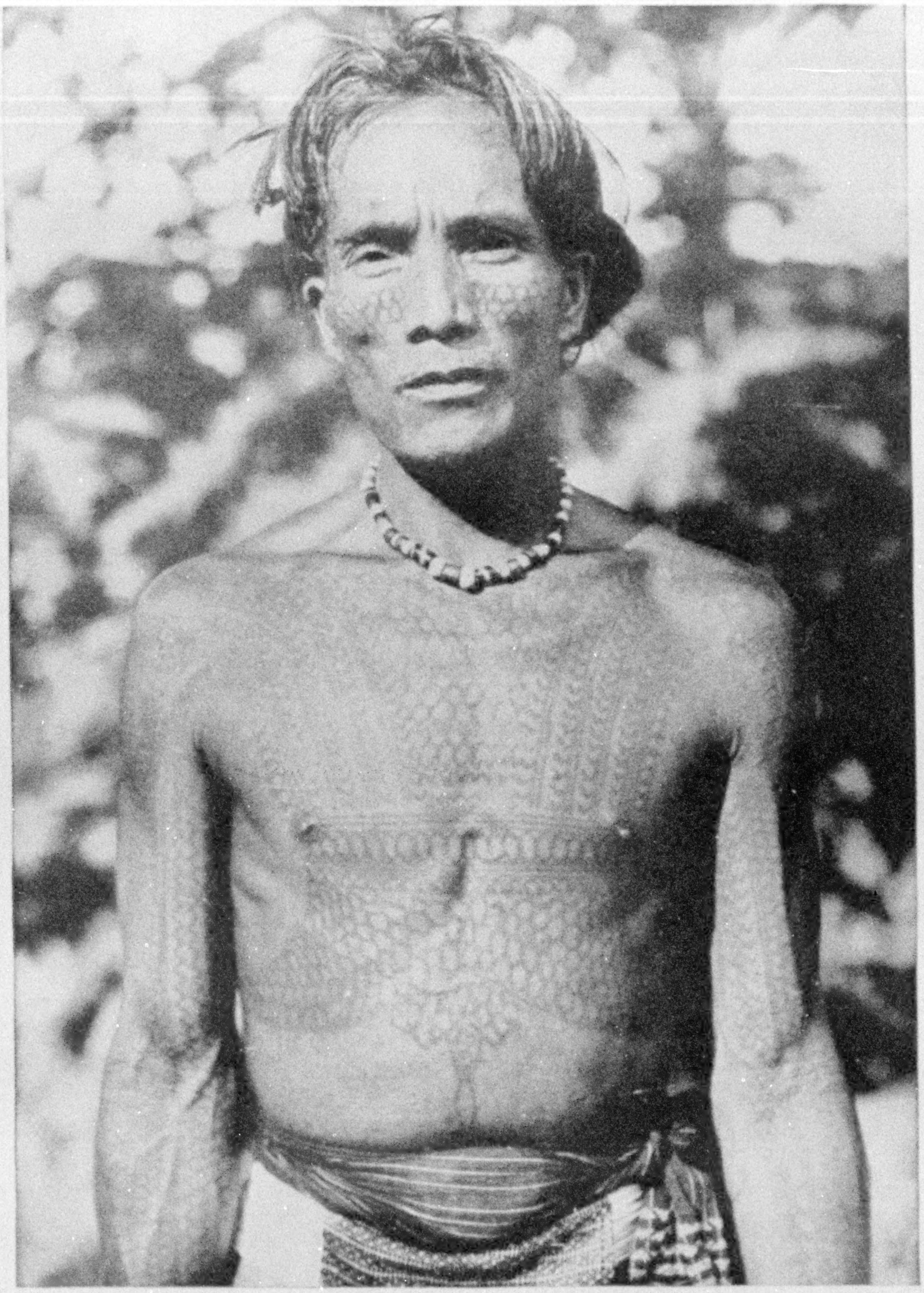
A YOUNG KALINGA

He has the peculiar eyes which are typical for the people of this tribe. The Kalinga are not forest-dwellers, but live on the open hillside and bare plain (see page 863)

elaborately constructed ornamental work, using small beads of various colors, hair from the manes and tails of white horses, bits of bright metal, pieces of mother-of-pearl, copper or brass wire, and the beaks of hornbills. From wire they make elaborate and beautifully constructed chains, which they wear about their necks (see pages 850, 854).

Girdles of cowries strung on colored cloth are considered especially valuable, as are long ear pendants made from the scarlet beaks of hornbills and mounted with brass. The latter ornaments are worn by men only. Both men and women wear large mother-of-pearl ear ornaments decorated with conventional scratch-work patterns.

Not only do the women embroider with surprising skill, but they make tassels of



A KALINGA CHIEF

Note his high cheek-bones and wealth of tattooing. This man has taken many a head

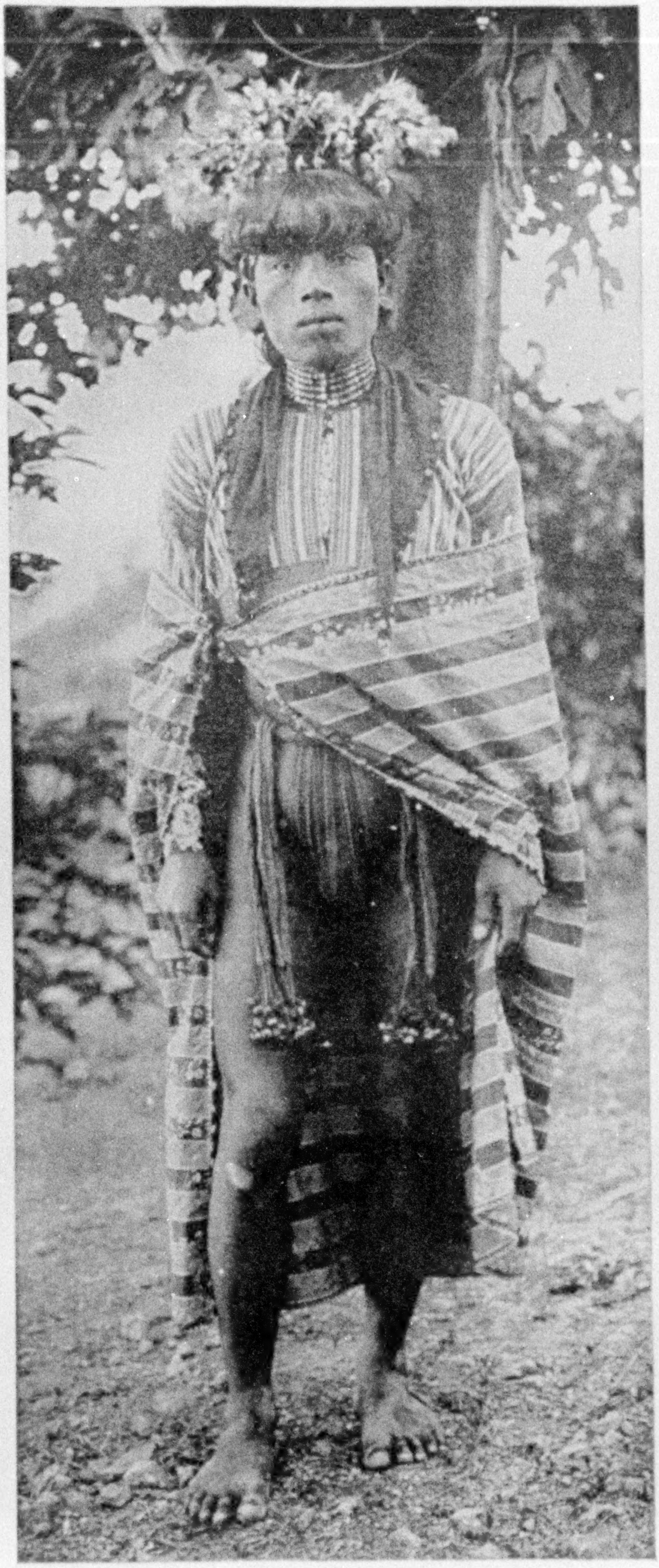
worsted or colored cotton thread, which they tie in tiny tufts on the separate hairs of their horsehair ornaments. Small bells are especially prized, both by men and by women, and are worn on their necklaces or girdles, or about the calves of their legs. Fine copper wire is hung in coils about the neck, and a narrow cord, beautifully woven from vegetable substances, is worn in similar fashion.

MUCH ATTENTION TO HAIR DRESSING

Neither men nor women cut the hair, which, in the case of the men, is tied up with rags to form a sort of chignon extending horizontally from the back of the head. Many of the men wear peculiar nets above their foreheads for the apparent purpose of keeping their hair out of their eyes. Clouts are often elaborately ornamented with beadwork, and the sheaths of arrows are adorned with beads and tassels. Infinite patience and pains are required to fashion these elaborately constructed ornaments from the few and simple materials at hand. Woe betide the man who rides a white horse into the Ilongot country, for, unless he keeps a guard over it, he will find its mane missing and its tail cropped to the skin!

Ilongot men set special store by steel armlets with inlaid brass band. It is difficult to obtain these armlets, as their owners are usually unwilling to part with them on any reasonable terms.

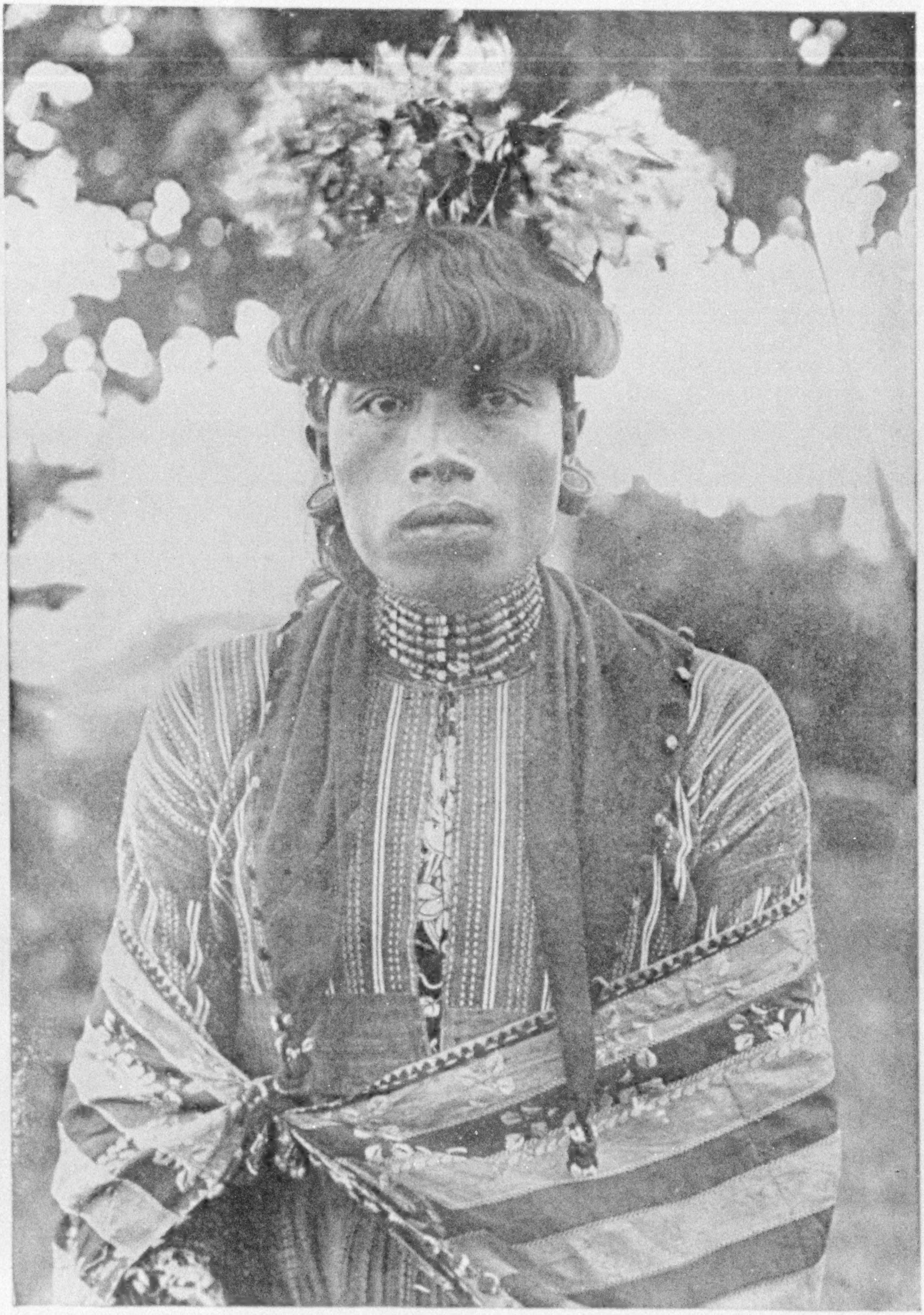
Ilongots use bows and arrows, both in warfare and in hunting deer and wild hogs. Most of their arrows have quite skillfully shaped steel or iron heads. Their other weapons of offense are war knives, carried in curved wooden sheaths decorated with metal bands, and poorly made lances of small size, the heads being hardly larger than good-sized arrow heads. The shafts of their lances are frequently ornamented with spiral bands of metal or of vegetable substances. For protection against arrows the Ilongots use long, narrow, and very light wooden shields of a peculiar and highly characteristic form. These shields are almost invariably painted a dull brick red. Ornaments fashioned from beads, hog bristles, white horse-hair, and threads of brightly colored cotton or worsted are often worn by the men about their necks, their waists, and the calves of their legs.



A KALINGA MAN WEARING TYPICAL DRESS AND ORNAMENTS

They "bang" their hair over the forehead, and the back hair is allowed to grow long and fall down over their shoulders.

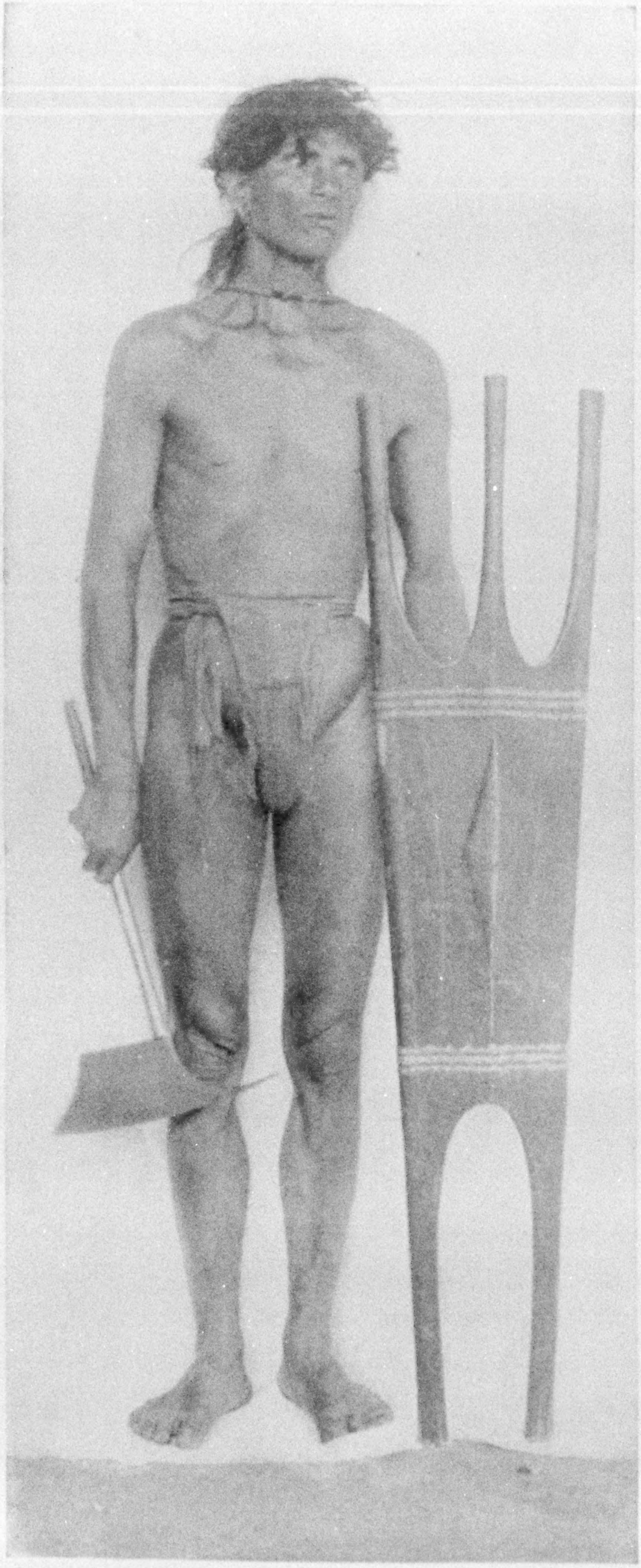
XUM



ANOTHER VIEW OF THE KALINGA DANDY

Note the scarlet feather ornaments in his hair; also his ear plugs. They frequently wear jaunty little rattan caps like the Bantoc Igorots (see page 863)

XUM



BAKIDAN

A famous Kalinga chief, in fighting trim, noted for his bravery in the face of the enemy

THE ROOF-TREE

The Ilongots occasionally build quite large and fairly well constructed houses, to which access is had by means of knotched tree trunks used in lieu of ladders or stairs. From each end of the ridgepole of such a house extends a hornlike piece of wood, which curves gently upward (p. 848).

Their houses are usually very filthy, and are scantily furnished with only the articles strictly necessary to make it possible for a rather primitive people to grow rice, yams, and corn, take fish and game, attack their enemies, and defend themselves.

Ilongots are especially skillful in hunting deer, which they drive into nets and then dispatch with arrows or lances.

Some of the members of this tribe are almost as nomadic as are the neighboring Negritos, while others have fairly permanent places of residence. They plant rice and sweet potatoes in considerable quantity, and also grow some sugar-cane, which they use to make a sour fermented alcoholic drink. Ground is usually prepared for planting by girdling and killing forest trees, which stand so closely together that the earth between them is free from grass or underbrush.

TREACHEROUS CHARACTERISTICS

Until very recently the several Ilongot settlements have been quite constantly at war with each other, and the people of this tribe have annually murdered considerable numbers of Christian natives.

The Ilongots almost invariably attack from ambush, lying concealed near trails and rushing upon their enemies from behind after the latter have passed.

They usually cut off the

heads of their victims, sometimes tossing them about and playing with them, and again carrying them for some little distance only to throw them away. It does not appear that they ordinarily take the gory trophies home, as do the representatives of all the other head-hunting tribes, although the hands or hearts of their victims are apt to be carried away by them as trophies.

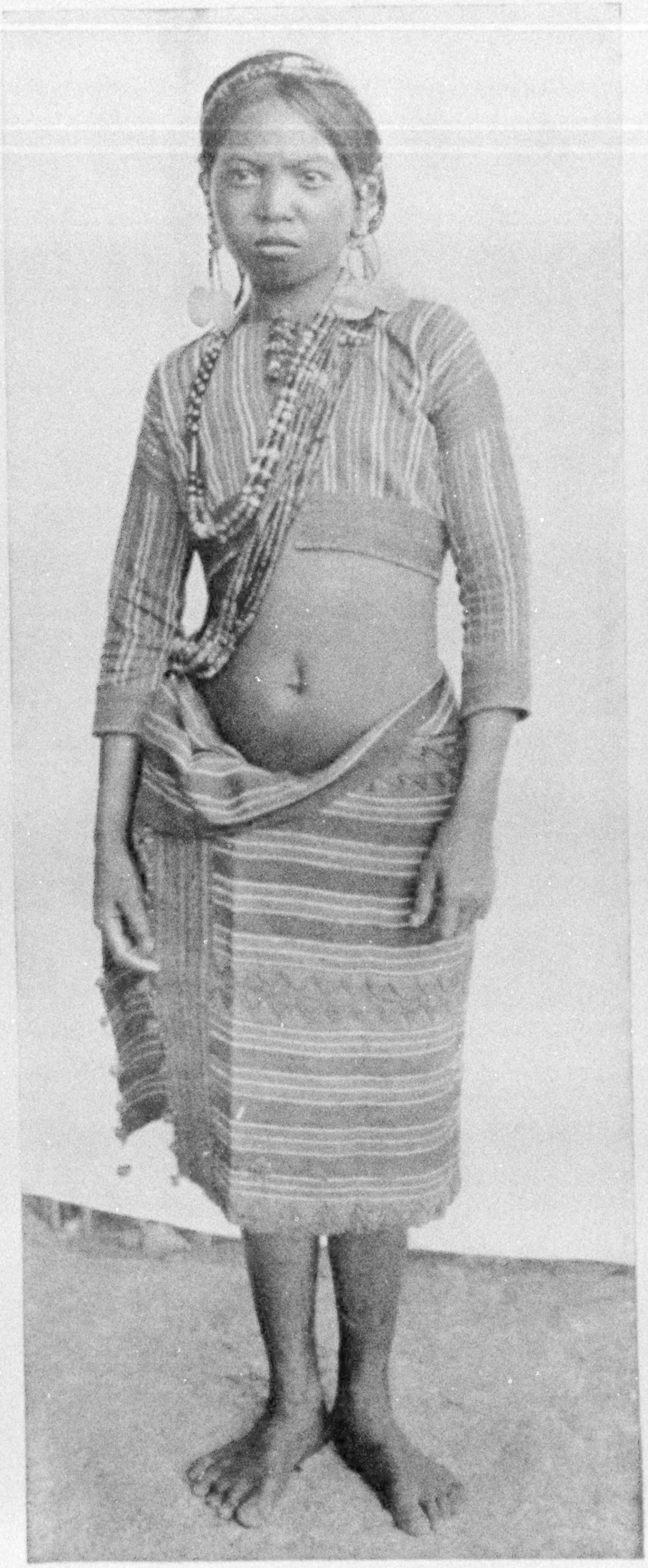
Men of this tribe murdered Dr. William Jones, an ethnologist of the Field Natural History Museum, after he had worked among them for more than a year. Fortunately his notes were saved, and, when published, they ought to give the first fairly comprehensive account of this little-known tribe.

THE KALINGAS

The name Kalinga, which means "enemy," is applied to the people of a sharply marked warlike tribe numbering some 66,000 souls. They inhabit the region bounded by the subprovinces of Ifugao and Bontoc on the south, Abra and Ilocos Sur on the west, Apayao on the north, and Cagayan and Isabela on the east. They are not forest dwellers, but live on the open plains and bare hillsides, or in large clearings along mountain streams. They are apparently of Malayan origin, and only in very exceptional cases do they show evidence of the admixture of Negrito blood. Their dark-brown bodies are, as a rule, kept quite clean, and are often beautifully developed. They have high cheek-bones and eyes shaped like those of the Chinese, but usually set level and very far apart (see page 858).

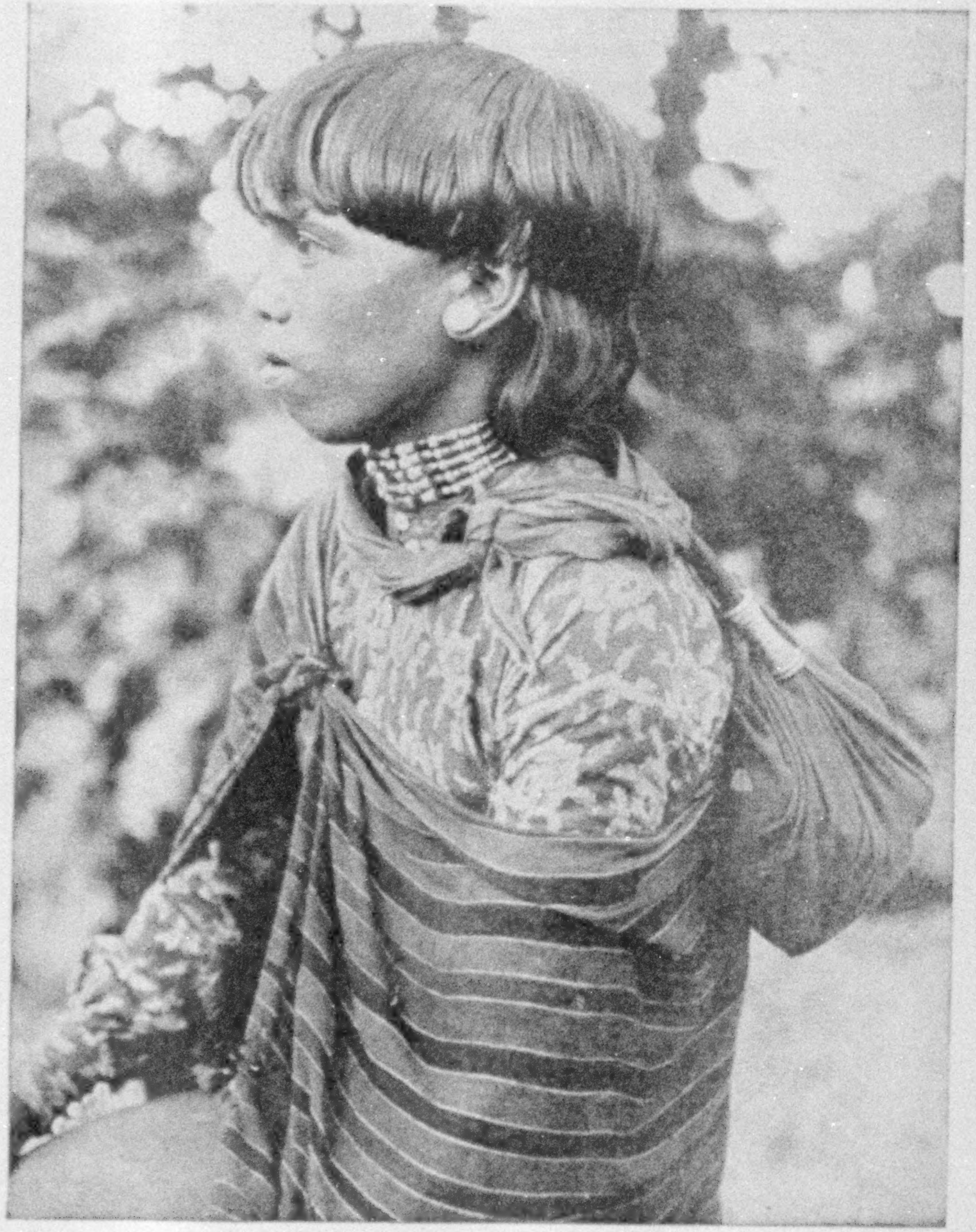
FOND OF GAY COLORS

The men "bang" their hair over the forehead and make straight cuts extending back above the ears through that hair on the sides of their heads. Their back hair, which is allowed to grow long, sometimes hangs down over their shoulders. They wear clouts,



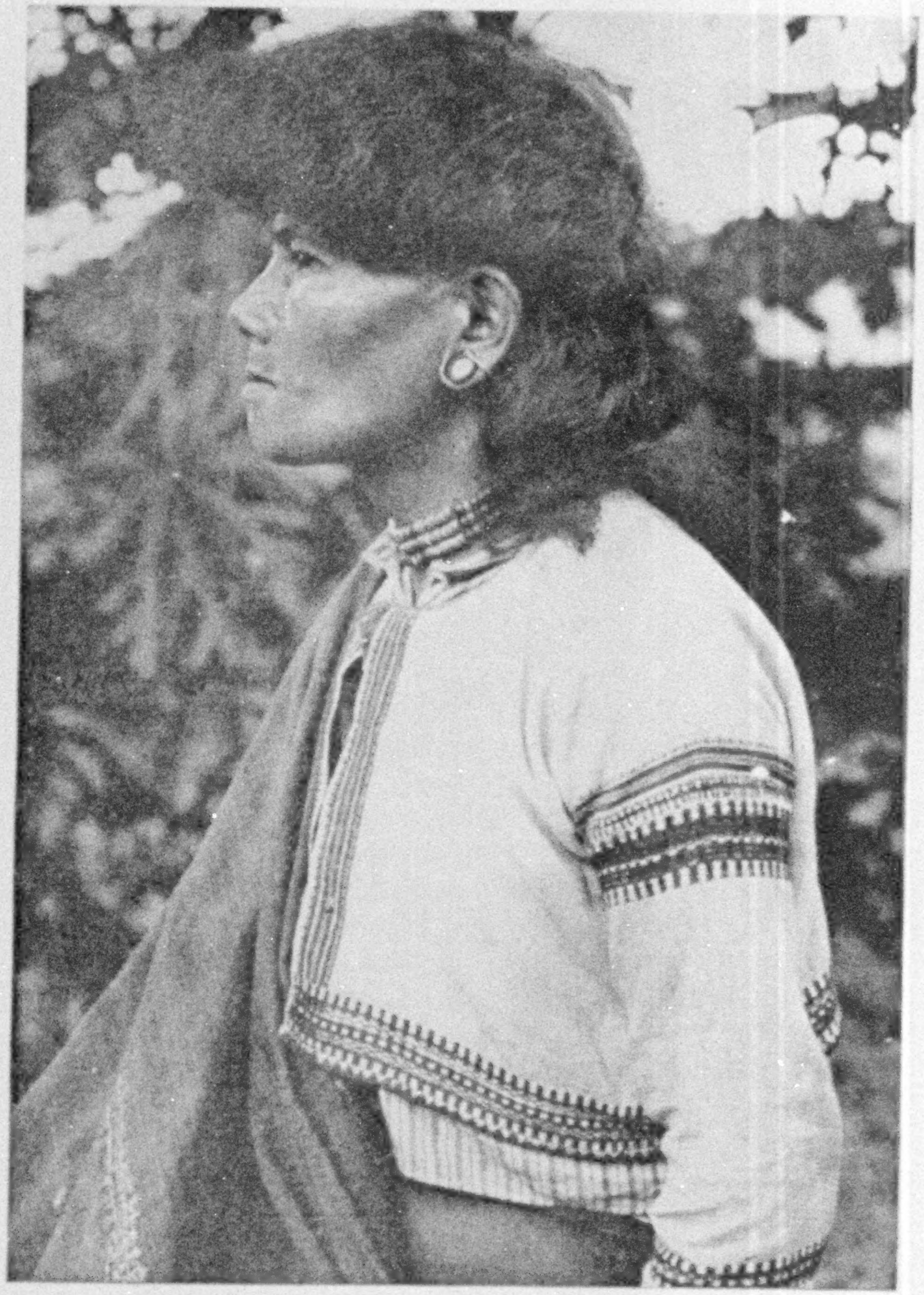
A KALINGA GIRL

Wearing the typical dress of well-to-do women. Unlike the women of neighboring tribes, they generally wear a short upper garment. Note the heavy ear ornaments of mother-of-pearl.



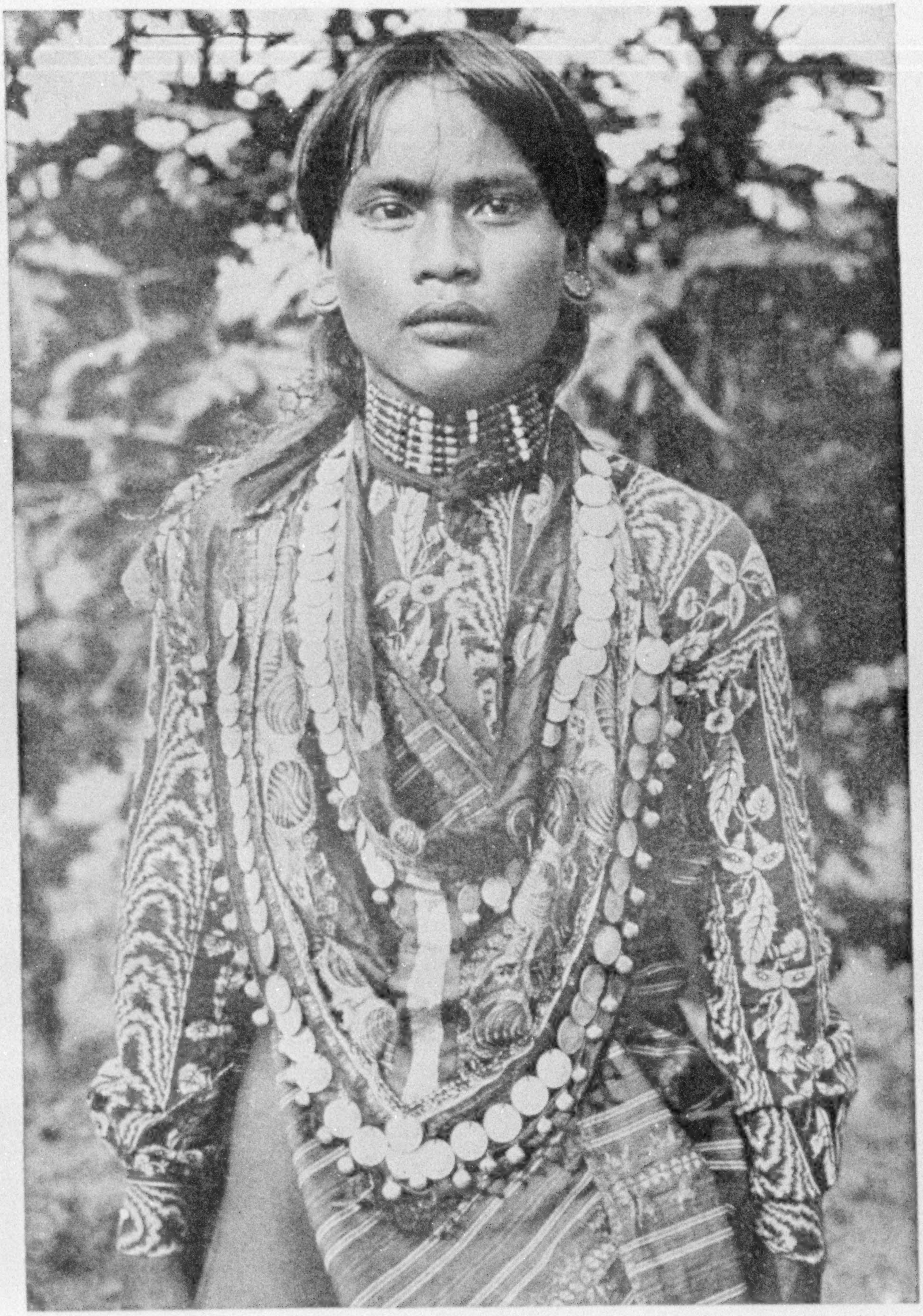
A TYPICAL KALINGA

Showing the method of cutting the hair. All Kalinga men who can afford it purchase and wear gayly colored blankets



SAKING, A FAMOUS KALINGA FIGHTING CHIEF

They are of Malayan blood and only in exceptional cases do they show evidence of the admixture of Negrito blood



IN FULL REGALIA

The Kalingas of both sexes bedeck themselves for all occasions, their garments being fashioned from either handsomely embroidered fabrics woven by their women or gaudily colored and large-figured imported cotton goods (see page 873).

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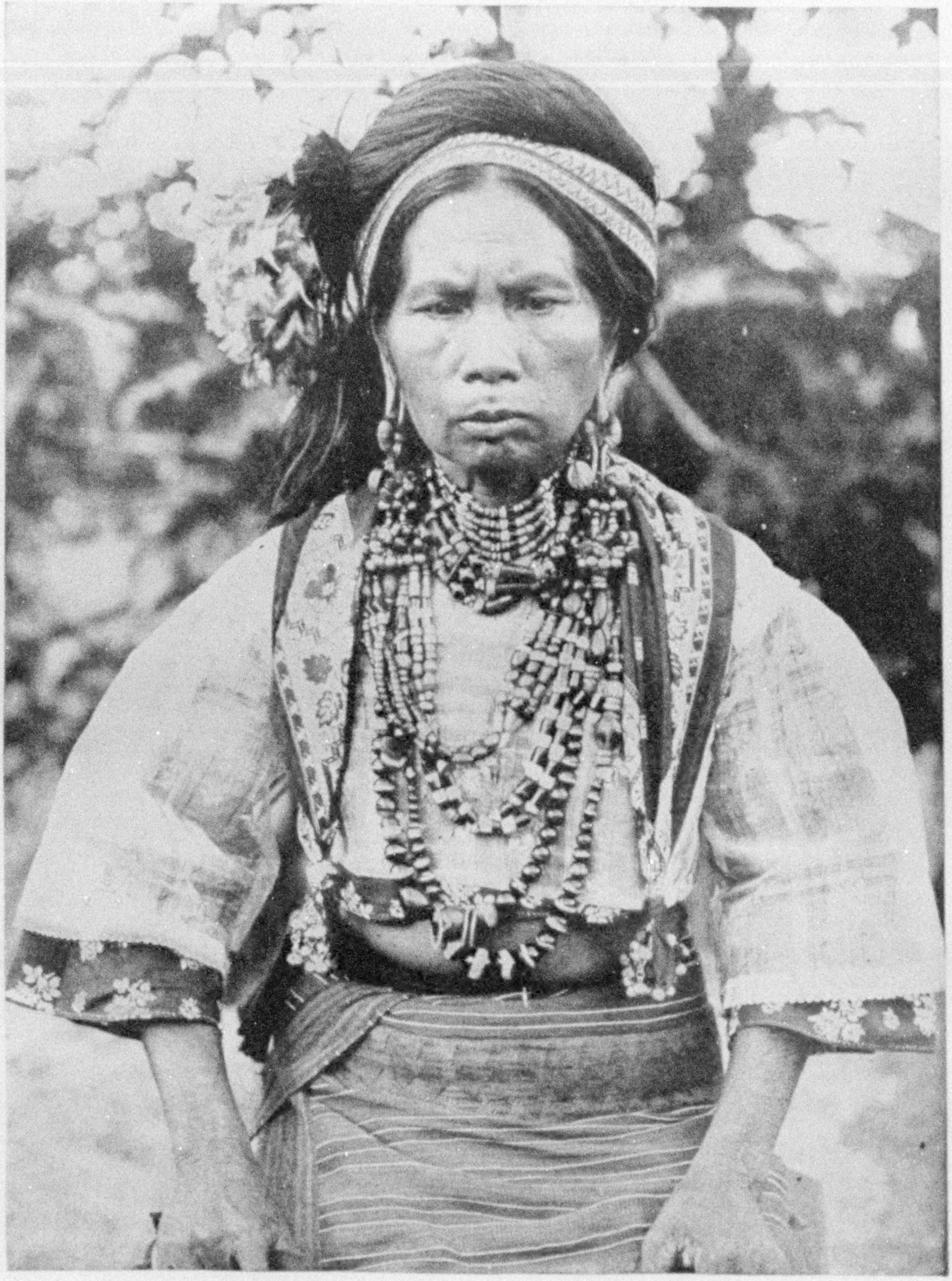

WIFE OF A KALINGA CHIEF

Note the false hair with feather plumes thrust into it; her heavy brass earrings, and the load of agate beads about the neck. Agate beads are their most highly prized possessions, and the older and rougher the beads the greater their value. The larger beads are worth a carabao each (see pages 873, 875).

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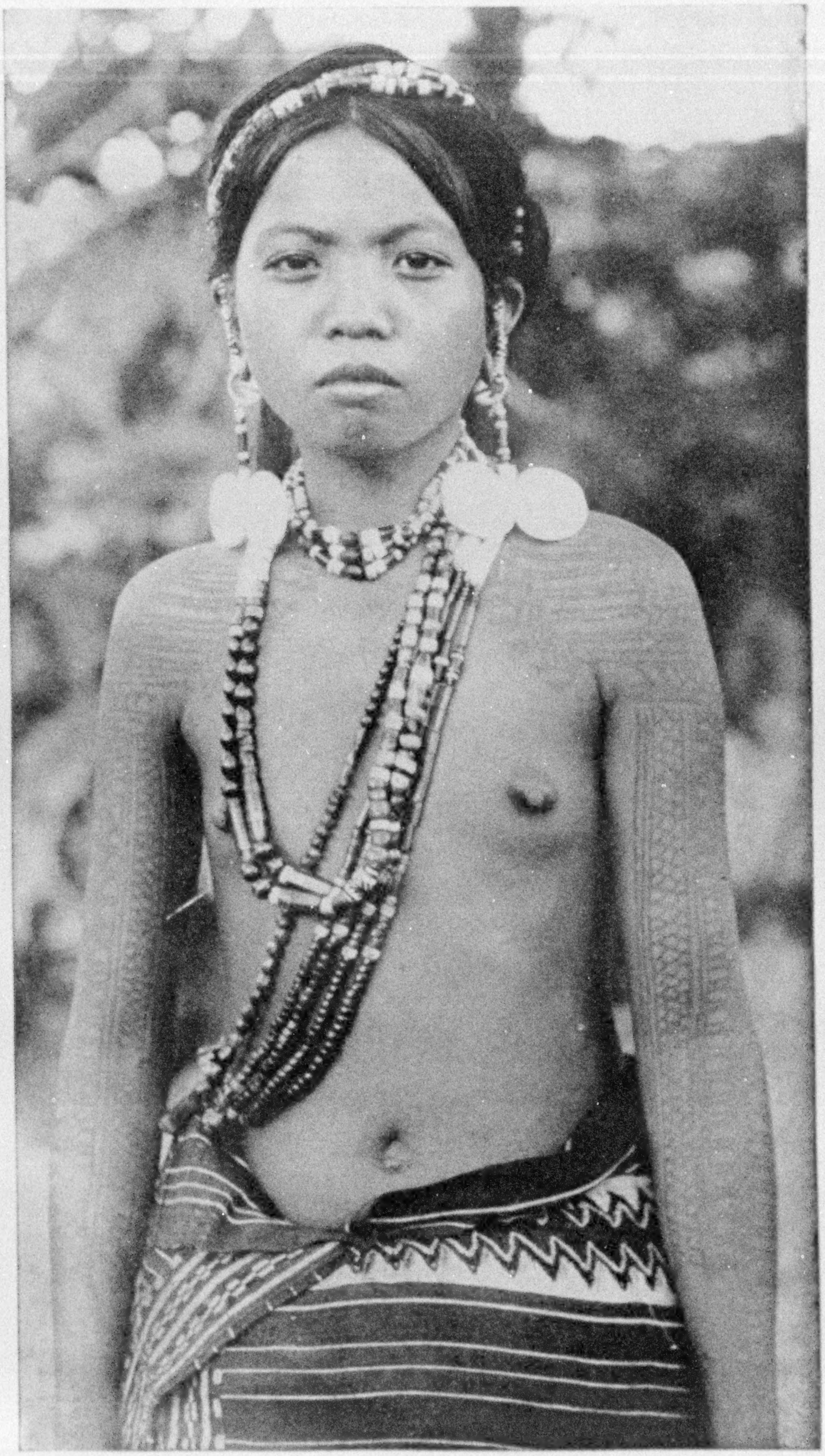

A KALINGA WOMAN

This photograph shows tattooing which, in many cases, takes the place of an upper garment. The ornaments are typical

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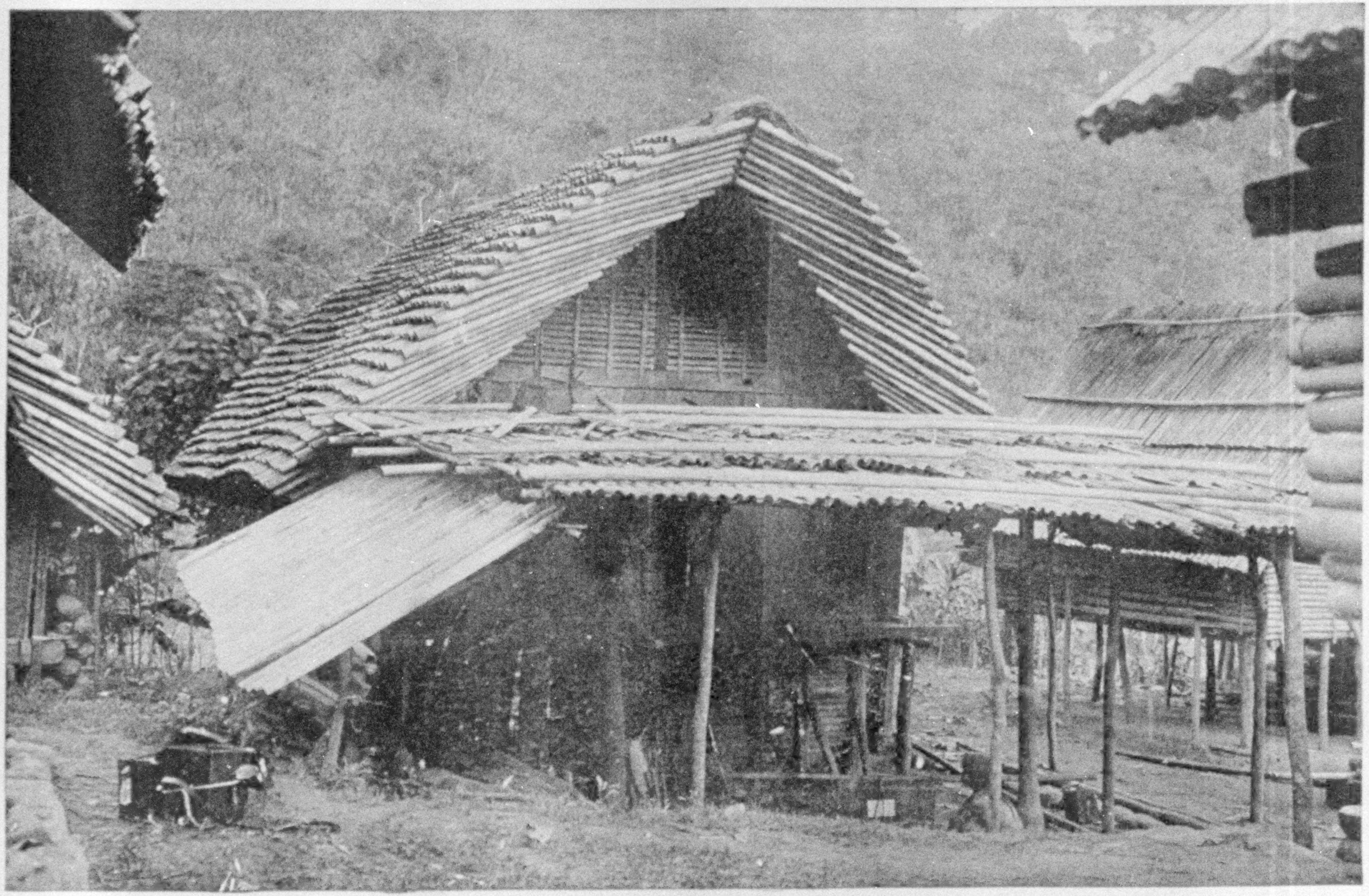
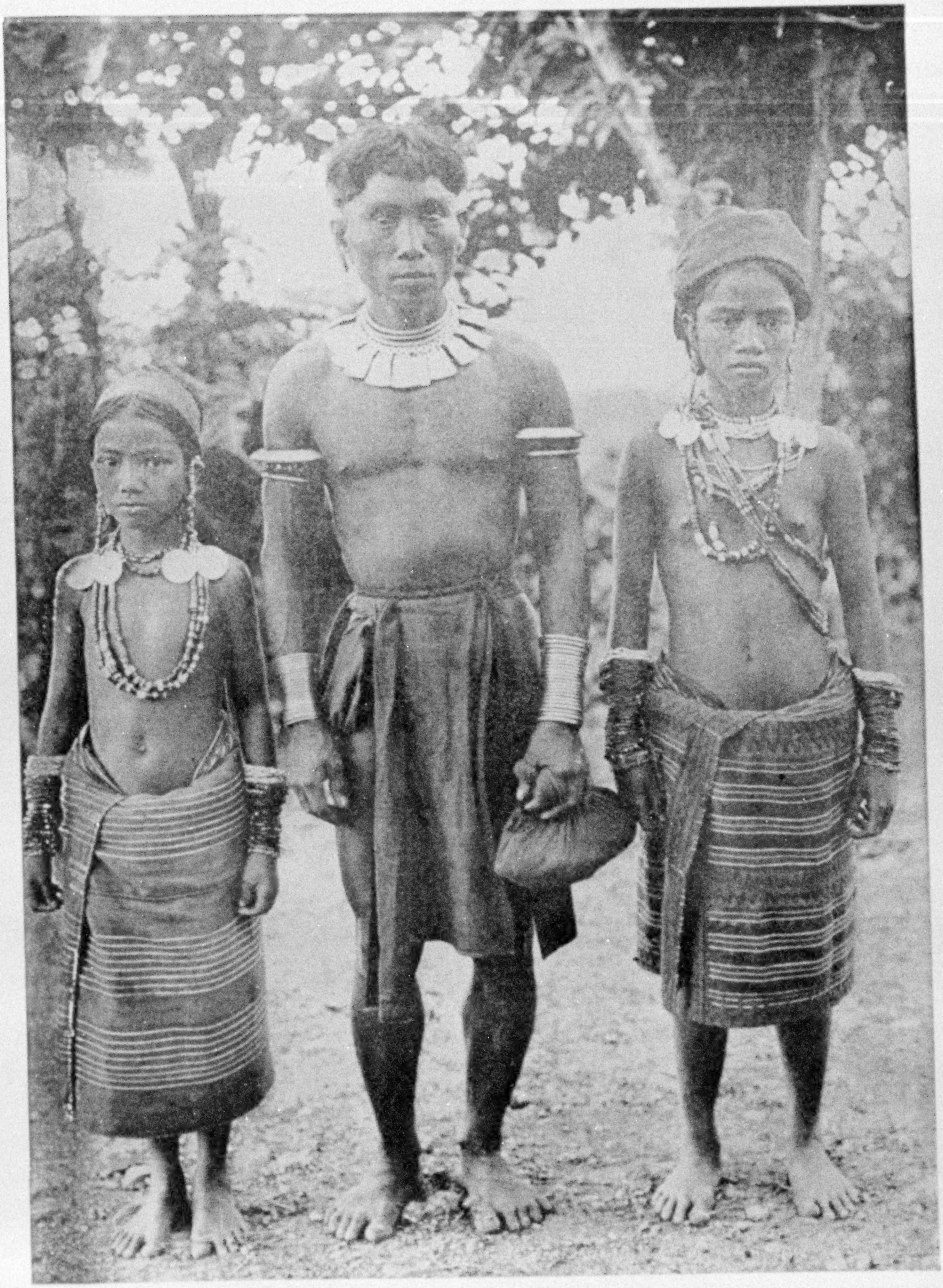


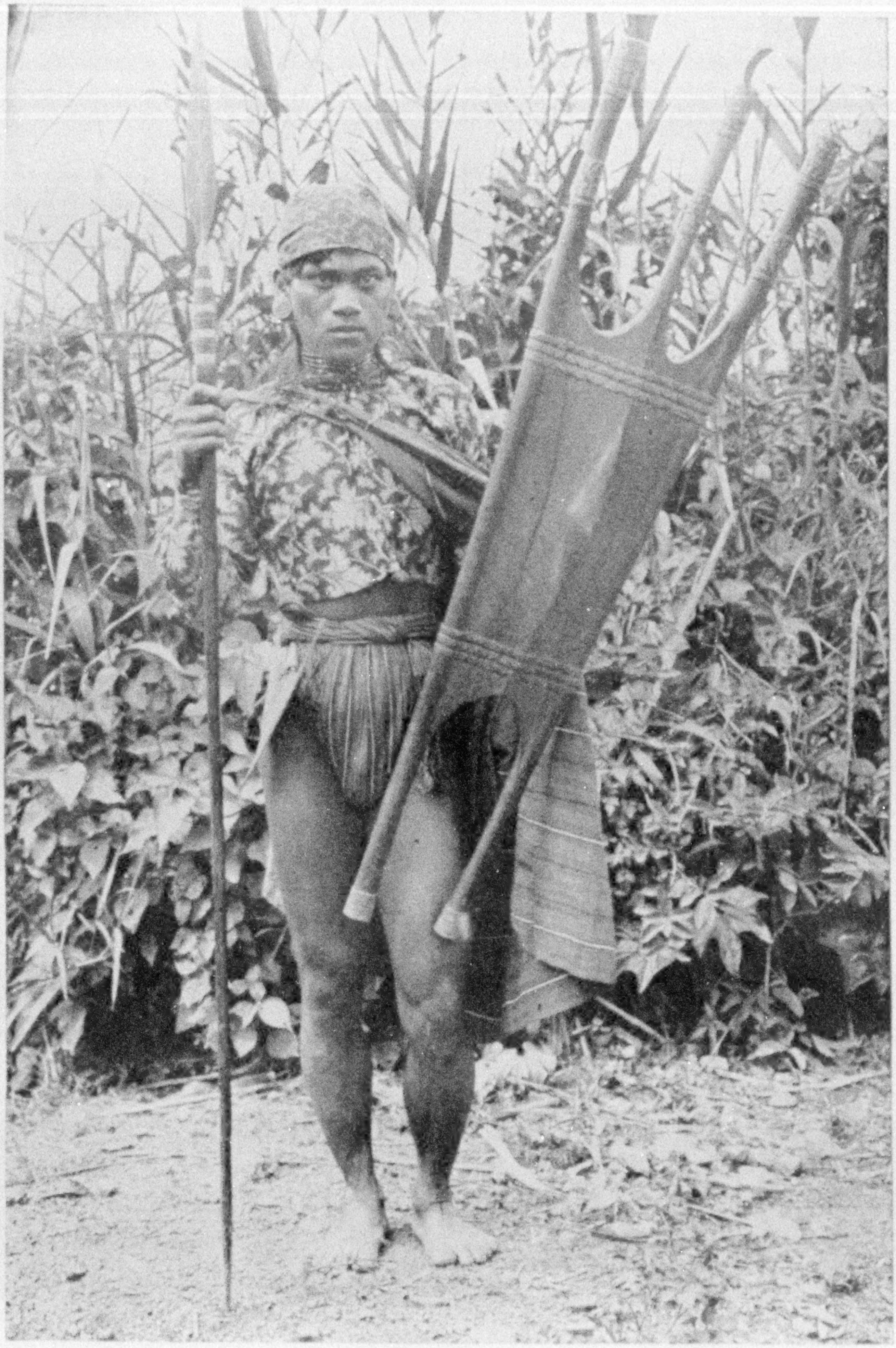
A KALINGA HOUSE

The houses are constructed with nardwood frames, removable rattan or runo grass floors, and thoroughly water-tight roof (see text, page 875)



A KALINGA FAMILY

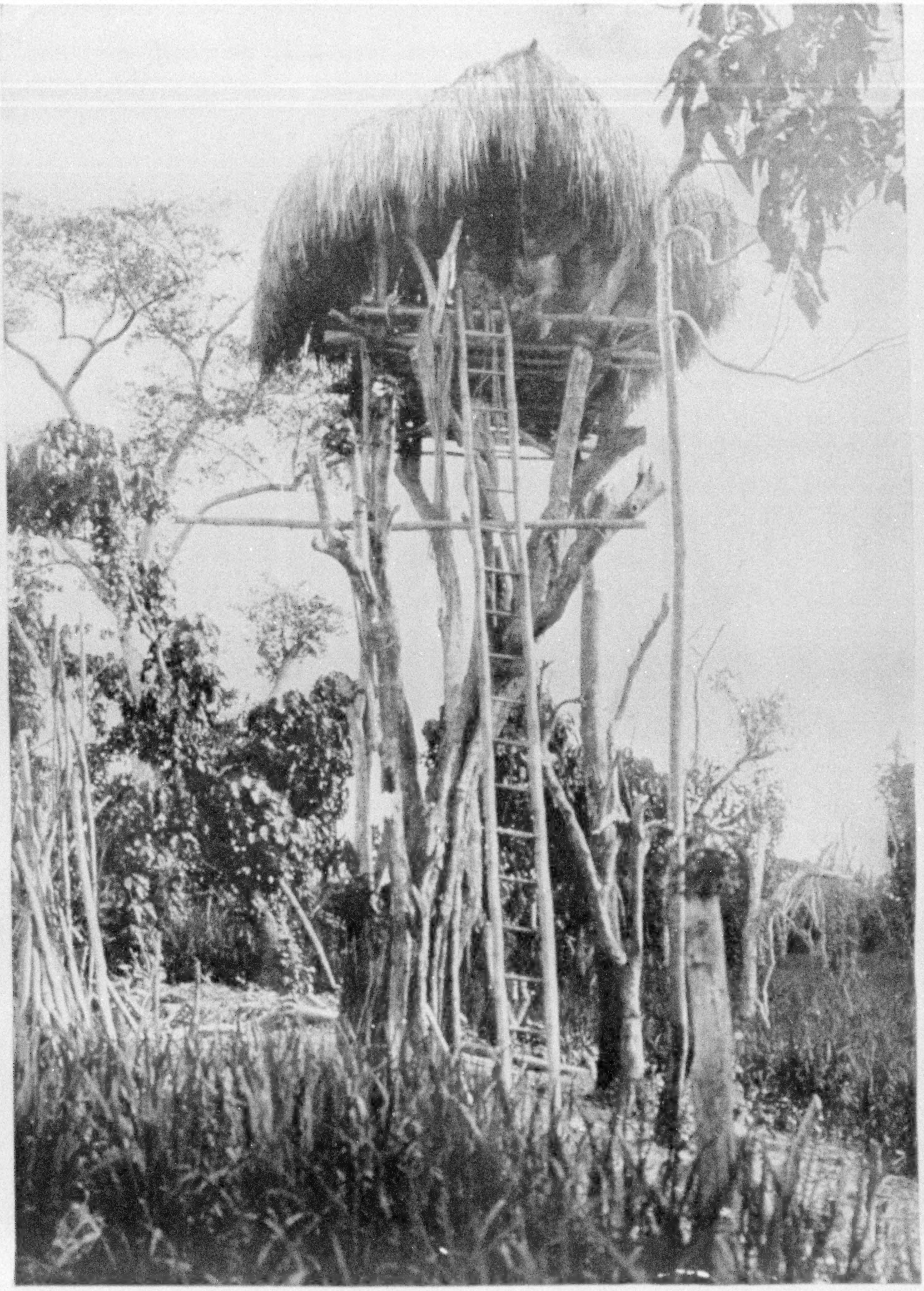
Note the ear pendants of mother-of-pearl worn by the women. Most Kalinga women have skirts reaching well below the knees and, in some instances, reach the ground (see text, page 873).



A KALINGA WARRIOR

The name Kalinga means "Enemy," and this warlike tribe number some 66,000 (see text, page 876)

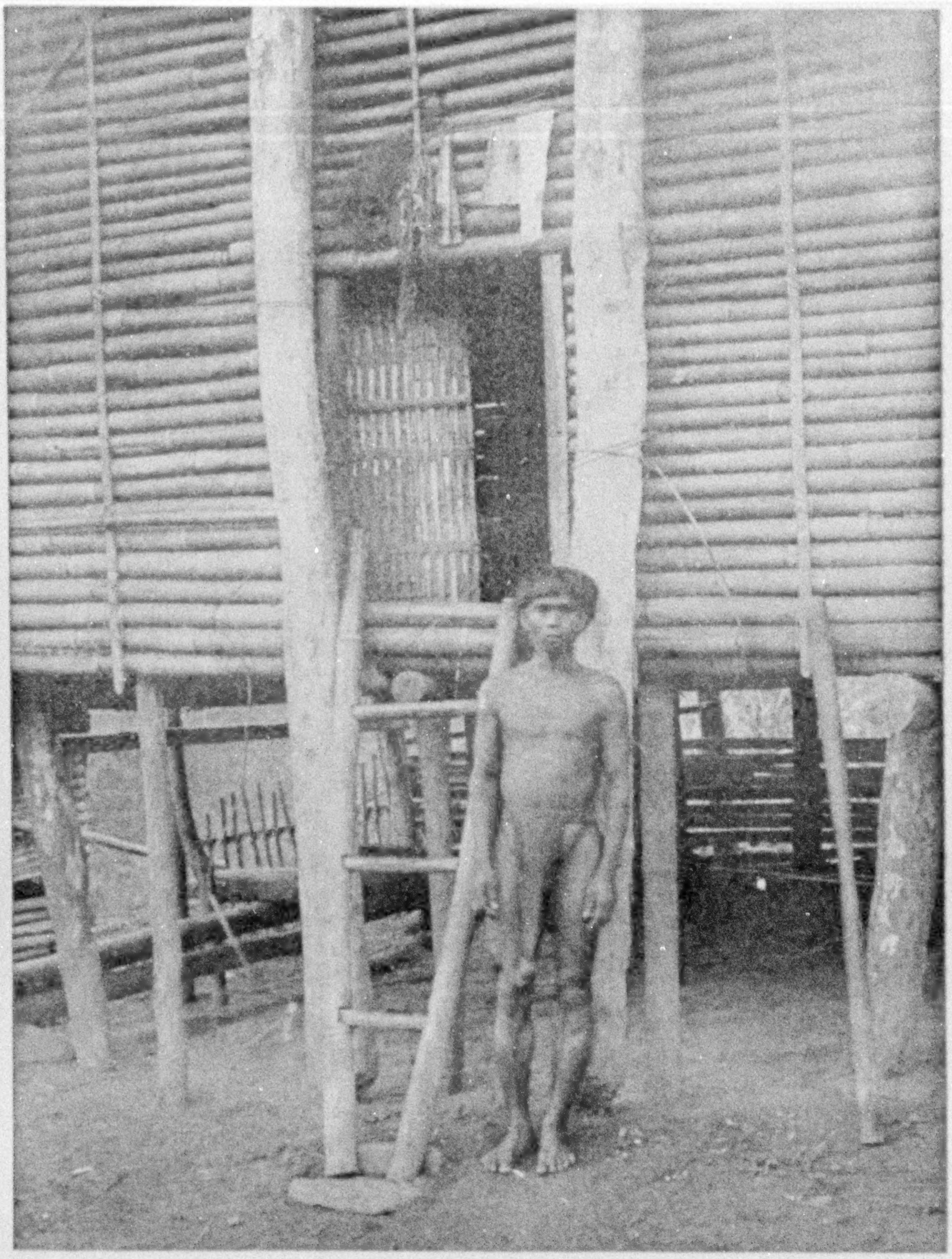
XUM



A KALINGA TREE-HOUSE

In regions where life and property are especially insecure they often build their houses in trees. Note the people in the doorway (see page 875)

XUM



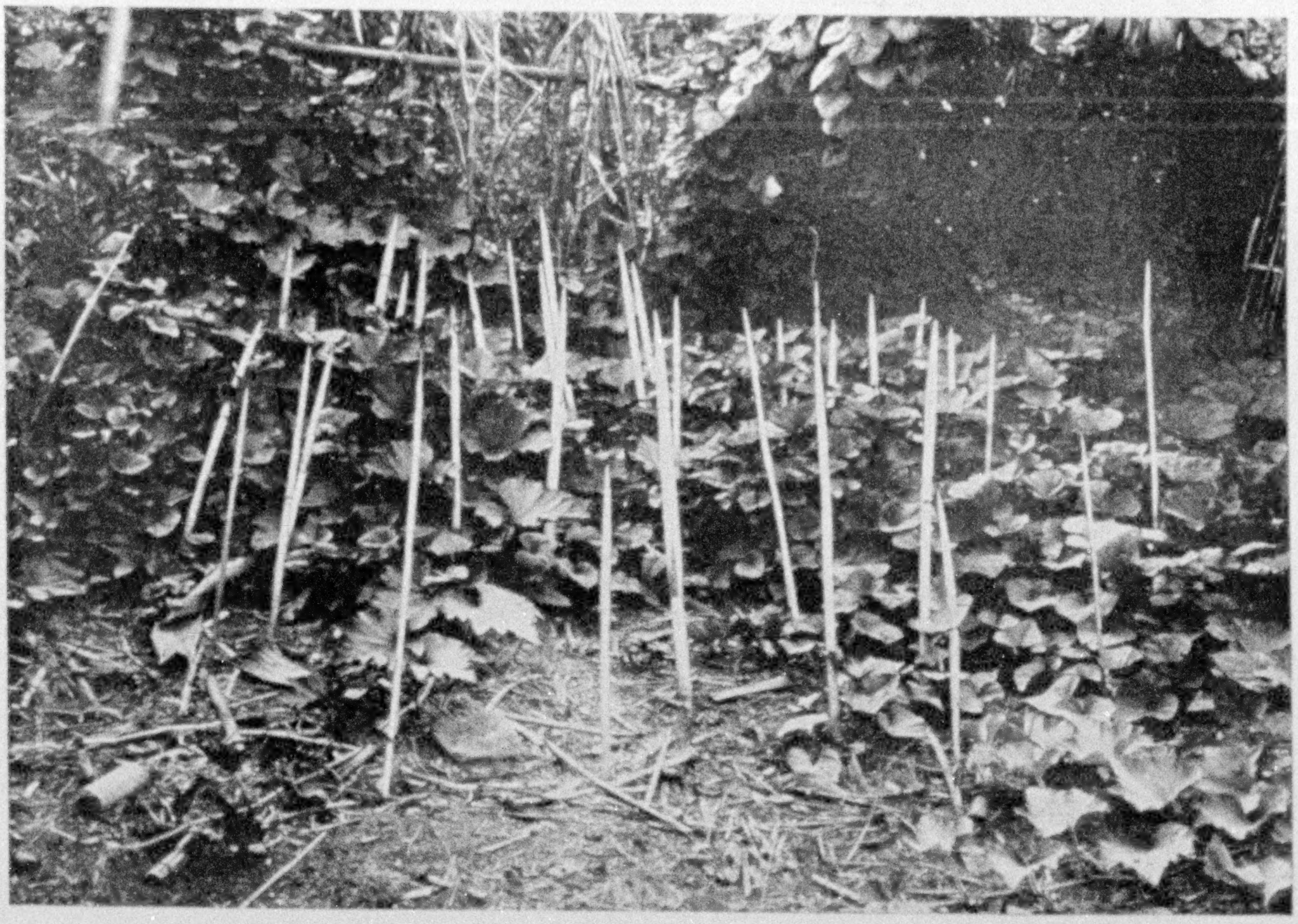
A KALINGA HEAD-HUNTER

Over the door of the house are hung three strips of bark cloth, each spotted with human blood, showing that this man had recently participated in three successful head-hunting raids (see text, page 877).

which are often covered with beads or with small white buttons. Many of them also wear short, tight-fitting jackets made from cloth woven by their women, or from gaily colored calico. Nearly all of them have peculiar shaped carrying-bags with two large ends and a narrow connecting portion in which is an opening, which is closed by means of sliding metal rings. These bags are usually hung about their necks.

All Kalinga men who can afford to do so purchase gaily colored blankets. They fold them diagonally, knot the ends together, and wear them with the knotted ends over one shoulder and the wide part of the folded blanket under the opposite arm.

Many of the men wear huge ear plugs inserted in such a way as to turn the perforated lobes of the ears directly forward. These plugs are usually made of wood, and their anterior faces are ornamented with coins, bits of bright metal, or gaily embroidered cloth. Great cylindrical rolls of bright-colored worsted



A NEST OF PUAS THAT WERE CONCEALED BY THE UNDERGROWTH

Puas are sharpened strips of bamboo which are set for the feet of the unwary by Kalingas, Bontoc Igorots, and Ifugaos alike

sometimes take the place of wooden ear plugs. The tattoo patterns are elaborate and often cover arms, chest, and back very completely.

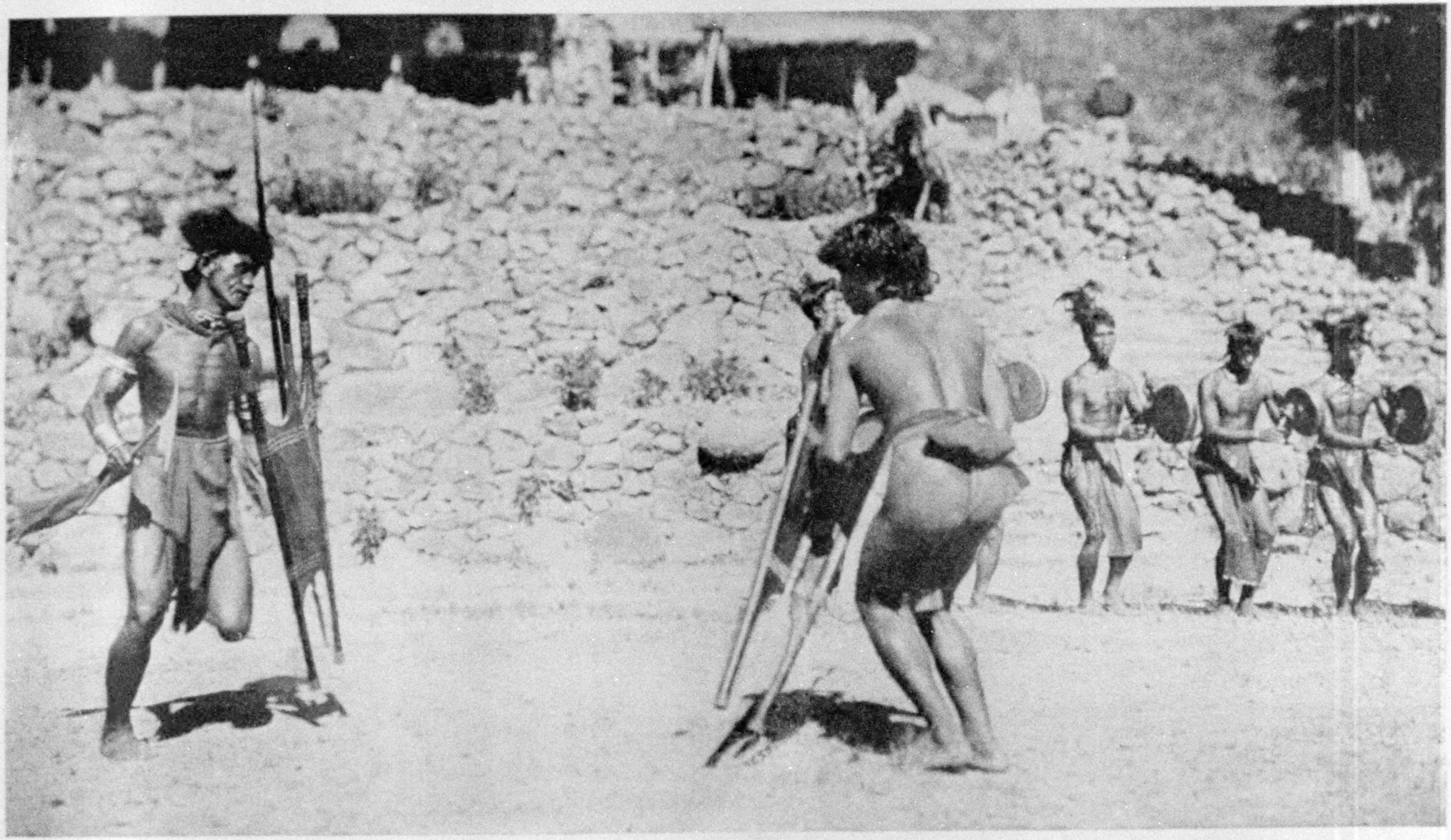
ORNAMENTS

On state occasions well-to-do Kalinga men ornament their hair with tufts of scarlet feathers, to the tips of which bright yellow feathers have been attached by means of bits of beeswax. Hibiscus flowers and marigolds are also often used as hair ornaments, and in the vicinity of Lubuagan, where the territory of the Kalingas joins that of the Bontoc Igorots, it is not unusual to see men wearing on the backs of their heads the jaunty little rattan caps characteristic of the latter tribe. However, the Kalingas are not content to take these caps as they find them, but cover them with carefully matched beads of agate or imitation agate. Agate beads, by the way, are their most highly prized possession, and the older and rougher the beads the greater their value.

Armlets or necklaces are the only other ornaments of the men, but the skin of their chests and backs, and often that of their faces and arms as well, is in many cases covered with elaborate and beautiful tattooing.

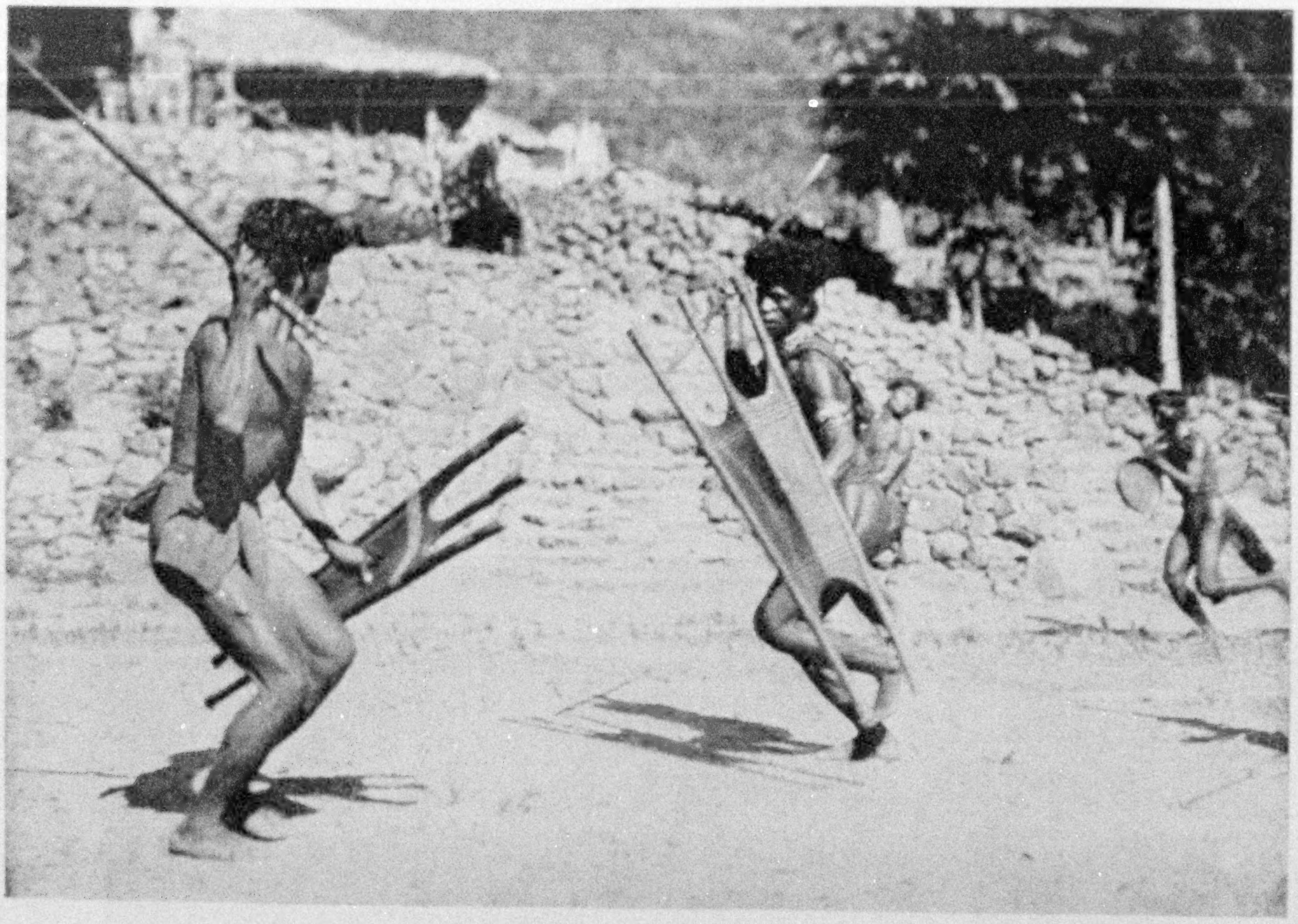
Most of the Kalinga women have skirts reaching well below their knees, and in some instances clear to the ground. These skirts may be made of handsomely embroidered fabrics woven by the women themselves, but more commonly are fashioned from gaudily colored and large-figured imported cotton goods. Unlike the women of neighboring tribes, they usually wear a short *camisa*, or upper garment. It fits the body tightly and has sleeves. The wives of rich men are fairly loaded down with necklaces of agate or imitation agate beads.

"Switches" are added to the abundant hair with which nature has favored them, and their heads are often piled high with raven tresses into which are stuck beau-



A KALINGA WAR DANCE

Note the peculiarly shaped shields which are always in evidence and the tom-tom players who are furnishing the music. The handles of the tom-toms are fashioned from the lower jaws of human skulls (see page 877)



A KALINGA WAR DANCE

The beating of the tom-toms becomes faster and faster as the warriors warm up to their work (see text, page 877)

tiful feather plumes similar to those worn by the men. Almost every Kalinga woman also wears a pair of heavy brass ear ornaments of a conventional pattern, and all who can afford it have in addition great mother-of-pearl ear ornaments shaped like a solid figure 8.

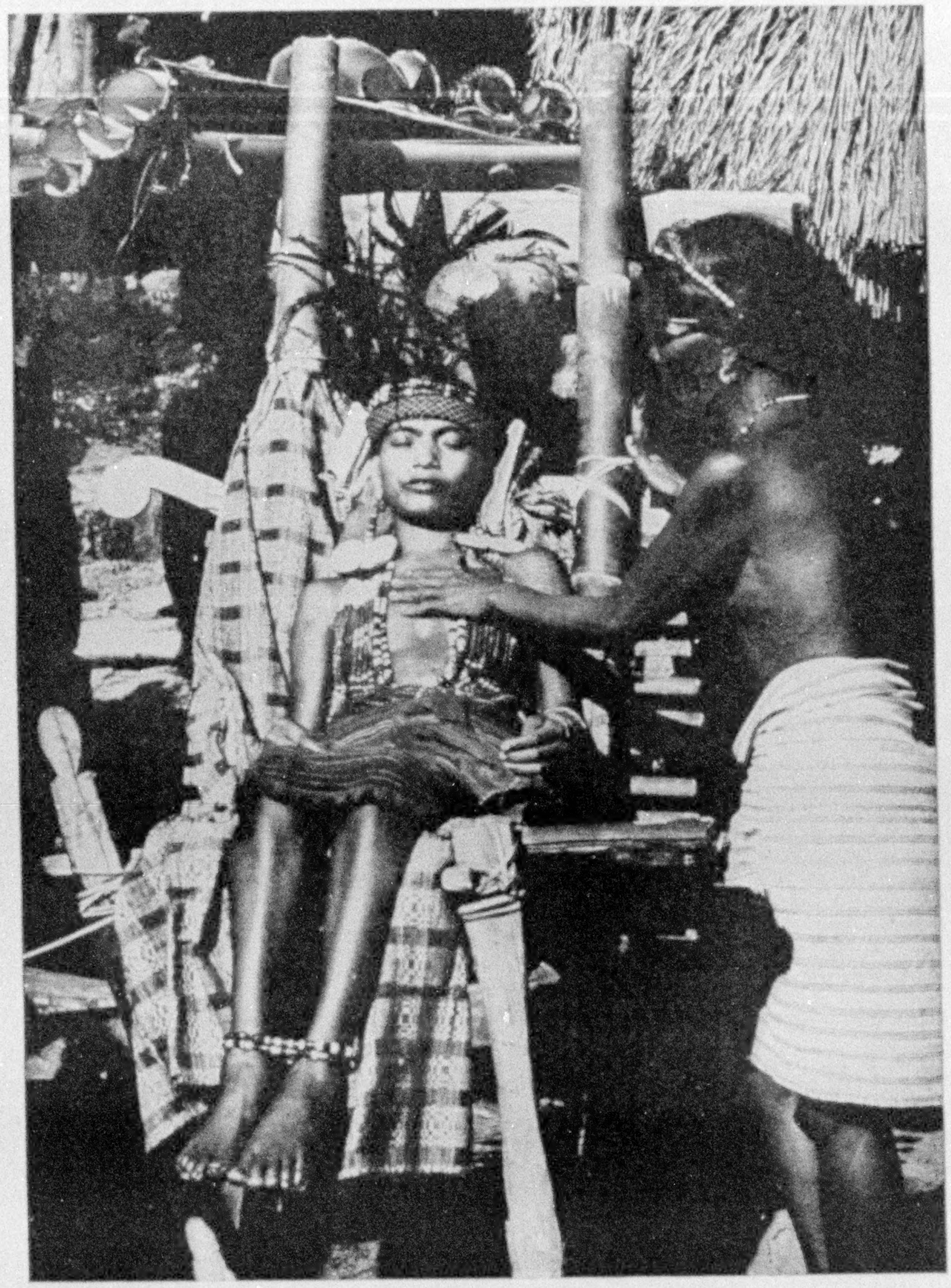
Many of the Kalingas construct large and well-built houses, with hardwood frames, removable rattan or runo grass floors, and thick, convex, thoroughly water-tight roofs. The floors of these houses are taken up daily and washed in the neighboring streams. On a raised ledge at one end of the single room sit ancient and highly prized jars of *basi*, an alcoholic drink made from boiled and fermented sugar-cane juice. There is usually a shelf for plates and other household utensils, which extends the whole length of one side of the house. China plates and glazed earthenware jars are highly prized by these people, and many of those which they have are doubtless very old.

TREE DWELLINGS

In regions where life and property are especially insecure they often build their houses in trees, pulling up their entrance ladders in case of danger.

The houses are ordinarily grouped in small villages, which are quite permanent in character, although a village is sometimes abandoned upon the advent of smallpox or other dangerous communicable disease, or after being successfully raided by a hostile war party.

Until within a short time the Kalingas have been fierce and inveterate head-hunters, constantly at war among themselves and with their non-Christian neighbors of other tribes. Furthermore, they frequently wiped out Filipino hunting parties and even attacked small Filipino settlements. Their weapons of offense are strong, skillfully fashioned lances and gracefully shaped but deadly head-axes. Their defensive weapons are beautiful black shields ornamented with scarlet and yellow or black and white



A DEAD KALINGA GIRL

The dead of several of the northern tribes are kept seated in chairs like the one shown in this picture until their funeral feasts, which often last many days, are over

rattan lashings. These shields are invariably of the peculiarly graceful pattern shown in the accompanying illustrations and differ completely in form from the shields of all other Philippine wild tribes.

War parties often number 50 or more individuals. The Kalinga is by no means above lying in ambush, but he not infrequently attacks in the open. When two or three men are down, the scrimmage resolves itself, on the part of their enemies, into an effort to take and get away with their heads, while their friends endeavor to save their bodies intact. When a war party has taken one or more heads it returns to the village whence it came.

HEAD-TAKING CELEBRATION

The customs connected with head-taking which prevail in the northern part of the Kalinga country are peculiar and interesting. We will suppose for simplicity's sake that a war party has taken a single head. Upon its return it is received with war cries and shouts of joy, and amidst uproar and confusion each warrior runs home and brings back a piece of clean white bark cloth. He dips this in the blood oozing from the severed neck, again hastens home, and hangs it over the door of his house. The bloody emblem constitutes a sort of "sign of the passover," since it is believed to avert sickness and to protect the occupants of the house from the vengeance of the friends of the decapitated enemy.

Meanwhile the fortunate individual who took the head carefully cuts through the cap of the skull with his head-axe and removes it, scalp and all. He chops it into as many pieces as there are members of the party, and each warrior on returning from his home is presented with a bit as a keepsake.

It is asserted that it is a common practice to pour *basi* over the brain, which has been exposed by the removal of the top of the skull, and to mix brain-matter and *basi* by vigorous stirring. This horrible concoction is then passed around, the head serving as a drinking cup, and those who will may partake. It is said that only the very brave do so, and this can readily be believed! The skull is then cleaned by boiling, and the lower jaw is used for the handle of a tom-tom, or *gansa*.

The old women take charge of the remainder of the skull and place it, with similar relics, in some safe hiding-place. Once a year these old hags bring forth all the mutilated skulls and use them in connection with a secret ceremony from which men are strictly excluded. One of the objects of this ceremony is to insure good crops.

PREPARING THE HEAD

Prior to boiling and cleaning, the head is placed on a heap of flowers in a basket of peculiar and characteristic form, woven at one end of a piece of bamboo. The other end of the bamboo is sharpened and driven into the ground.

A *cañao* is then held. The men squat in a great circle, around which the women walk or stand. *Basi* circulates freely and the excitement of intoxication is soon added to that caused by the return of the victorious war party. Three or four men beat with their hands upon *gansas*, the handles of which are hooked into the waistbands of their clouts, the *gansas* themselves resting upon their thighs as they kneel. The deafening clash of the *gansas*, in the old familiar cadence which for uncounted centuries has celebrated success in war, adds to the general excitement, which finds vent in the monotonous, high-pitched, ululating war cries characteristic of the people of this tribe.

REACTING THE ACHIEVEMENT

Into the ring steps the hero of the occasion, dressed in his best clothes, decked with his gaudiest ornaments, and bearing the shield, lance, and head-axe used in the recent fight. Behind him there creeps along the ground a strange shrinking figure clad in soiled garments, with a dirty cotton blanket pulled over its head. The hero attracts attention to himself by emitting a squall which resembles nothing so much as the yell of a puppy when its tail is heavily trodden upon.

He then begins to speak in a monotonous and highly artificial falsetto voice, the tones and cadences of which are strongly suggestive of those of a Japanese actor. With word and gesture he describes his recent exploit, using the shrinking figure beside him as a dummy to represent his fallen foe. When he stops for breath the *gansas* strike up again, and when their clangor ceases he resumes his narrative. After concluding his pantomimic discussion of his latest exploit, he describes and boasts of previous achievements.

Incidentally he indulges in high stepping and high *jumping*, and displays deadly skill in the manipulation of his weapons. The crowd grows ever more excited and, during the intervals while the *gansas* are playing, shrieks its ap-

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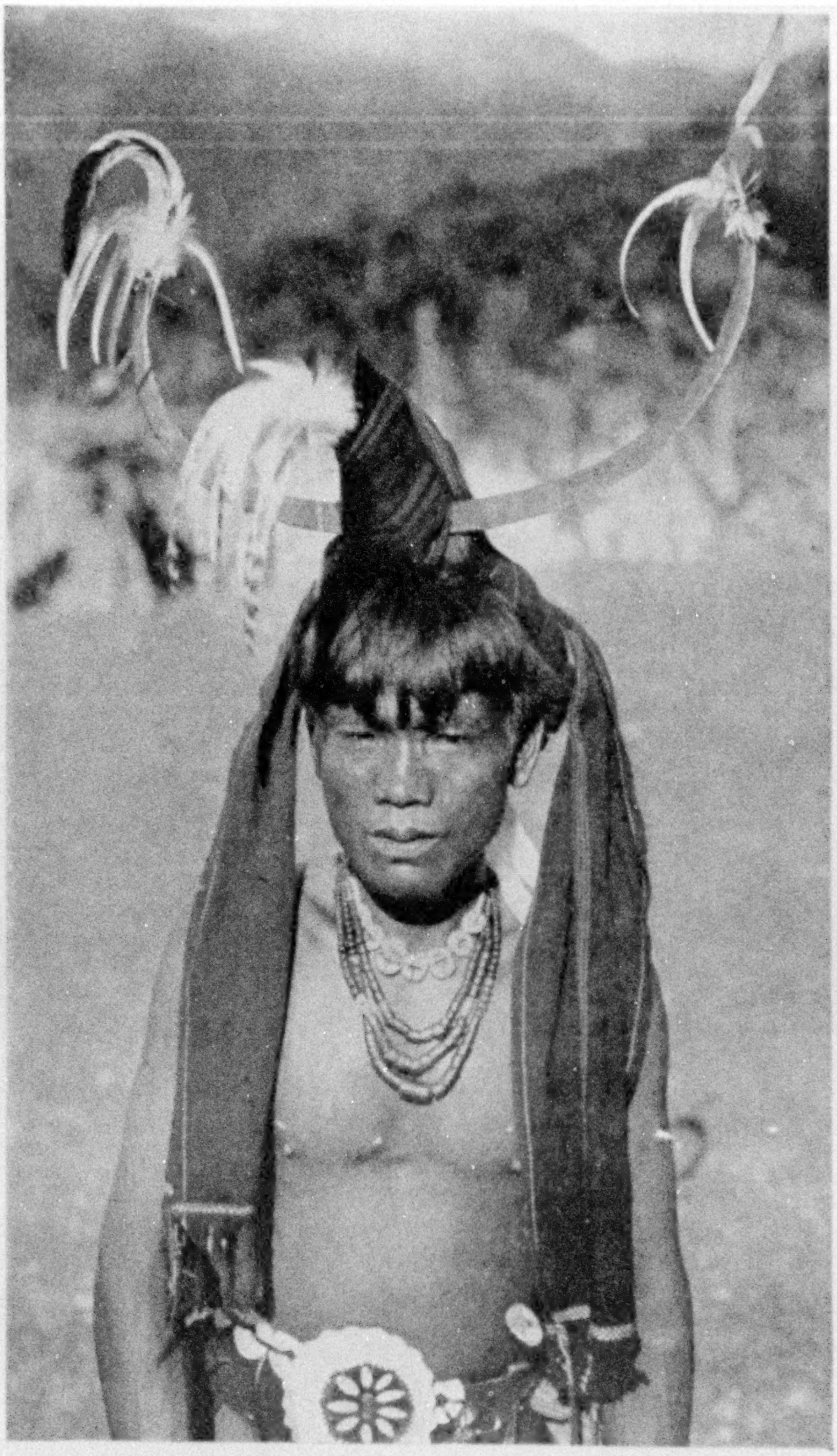


GUINED, A CELEBRATED IFUGAO CHIEF

Note the peculiar head dress and curious ornaments. They seldom go about without weapons; the handle of his knife can be seen on the left side

proval and shrills its monotonous war cry. Finally, when his voice has grown hoarse and his muscles are tired, the principal actor retires and another takes his place. As darkness comes on a blazing fire is lighted within the *cañao* circle.

Ultimately the young and vigorous warriors who participated in the recent fight are succeeded by the old men, who have been kept at home by the burden of years and infirmities. Strong drink has caused the dying fire in their veins to flare up for the moment. Each of them has a history of warlike deeds, which he proceeds to recount. The crowd already knows his story by heart, and, when the forgetfulness of age or that of intoxication causes him to falter, prompts him and shouts with laughter at the joke.

Gradually the *basi* begins to exert its stupefying effect; but so long as the music, the dancing, and the shouting continue every one manages to keep awake. At last food is passed, and in the interval during which it is being consumed the liquor gets a fair chance to work. As the east begins to glow with the coming dawn, men and women fall asleep in their places, or hasten to their homes, and the *cañao* ends, for the time being at least.

I note that the editor of one of the great American journals has stated that I exaggerate the wildness of the "Igorotes," by which tribal designation he apparently means the wild hill men of northern Luzon taken collectively.

I wish that he might have sat by my side at a Kalinga head *cañao* which I was forced to witness at Boia when I visited that place with one American and one Filipino companion on a trip which took me for days through territory where neither a white man nor a Filipino had ever been seen before. Would that I had the words of a Kipling to describe what I then saw; but if there is anything wilder to *be* seen, may I be spared from seeing it!

AGRICULTURAL ADVANCE

The Kalingas have made considerable advances in agriculture. They build terraces on the mountain sides and grow rice, which they cultivate with great care. Yams are raised in considerable quantity, and especial pains are taken in the cultivation of sugar-cane, from which is obtained the *basi*, so dear to the heart of the wild men of northern Luzon.

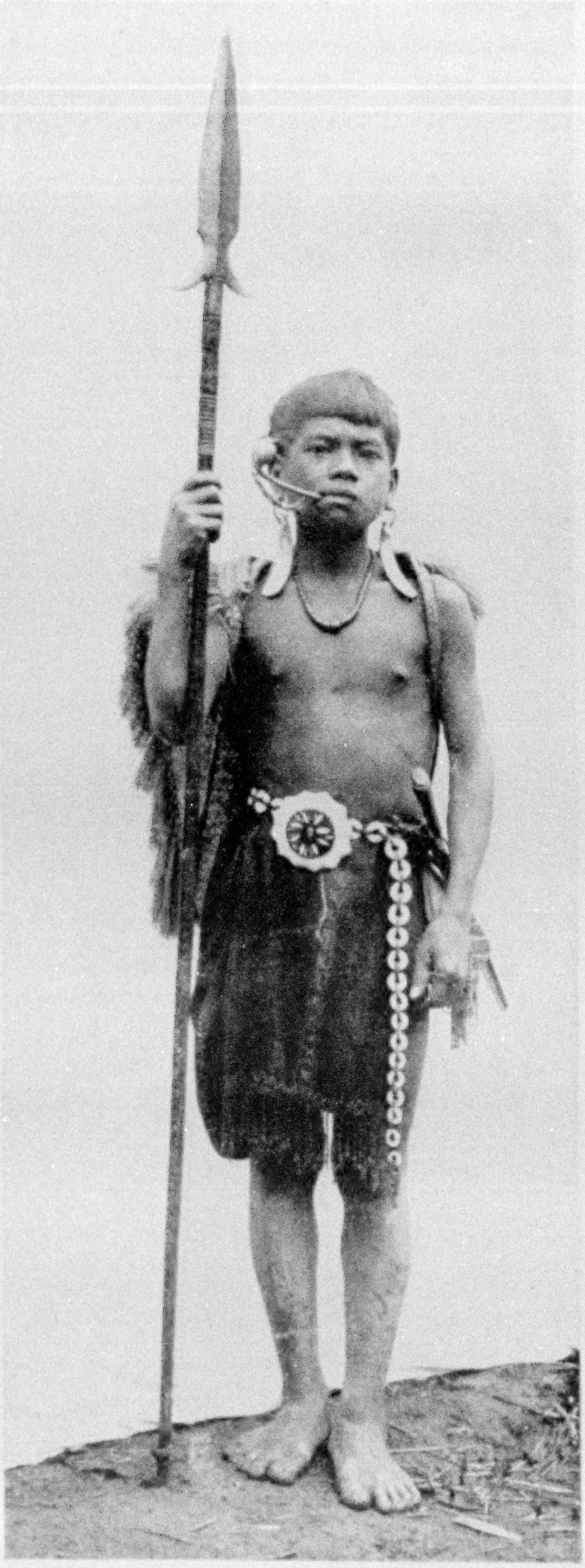
THE IFUGAOS

The Ifugaos, of whom there are approximately 123,000, inhabit a relatively small and excessively mountainous region, which formerly constituted the northwestern portion of the province of Nueva Vizcaya, but has now been made a subdivision of the Mountain Province. They are of rather small size and are wiry rather than heavily muscled. The men cut the hair in a manner peculiar to the tribe, the result obtained being that which would be had if a good sized bowl were pressed well down over the crown of the head and the hair were shingled closely up to the edge of the bowl. They tattoo their chests and necks and sometimes their thighs. Their tattoo patterns are entirely different from those of the Kalingas or the Bontoc Igorots, and cover the skin much less thickly. Women tattoo only the arms.

SOMBER IN DRESS

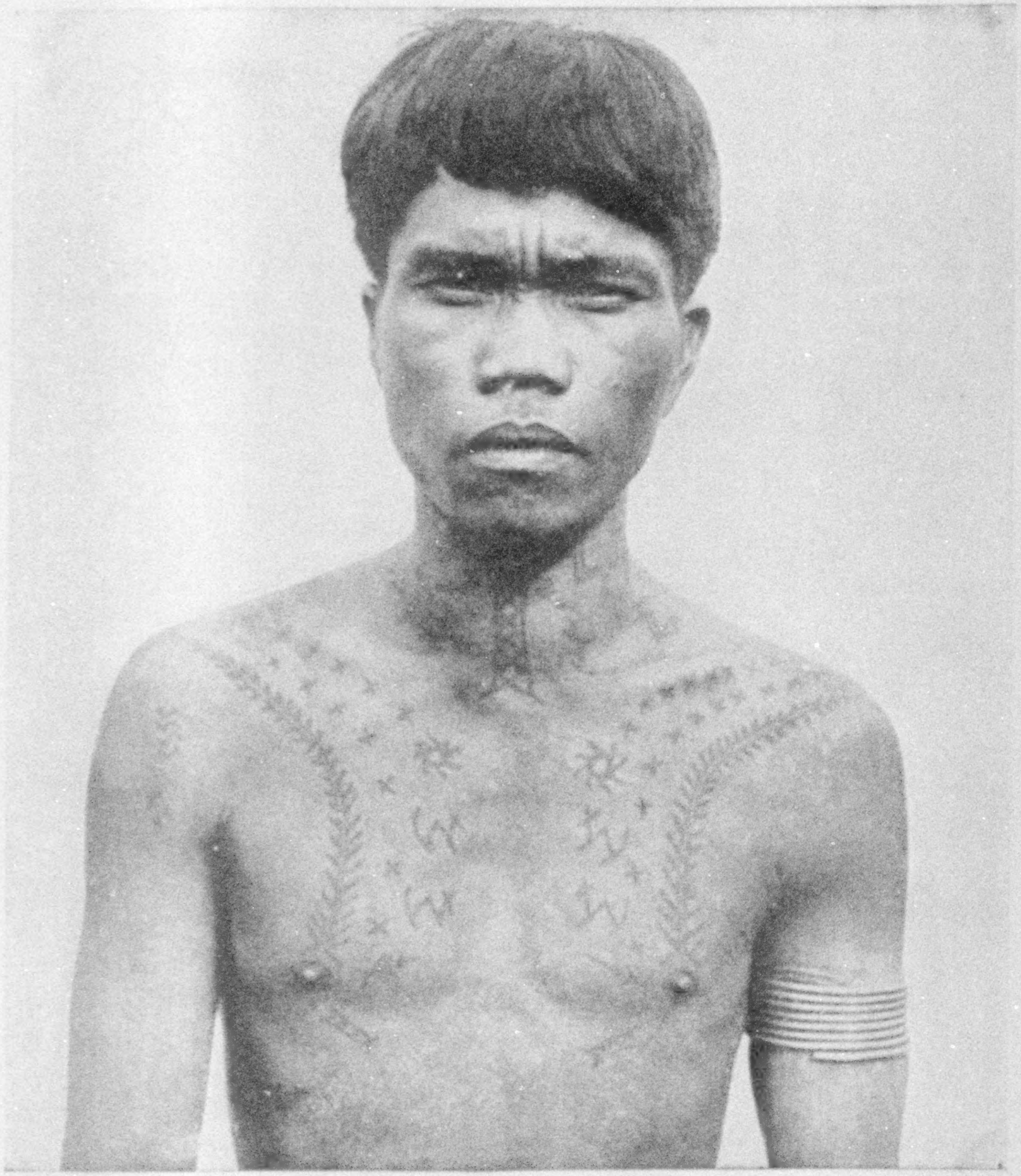
The dress of both men and women is as somber as that of the Kalingas is gaudy. The men wear unornamented clouts, but often carry small cotton blankets, which they wrap about their shoulders upon occasion. Clouts are usually of a dark blue color with or without a white or small scarlet figure. Blankets are black, dark blue, or blue and white. Headmen wear belts fashioned from the opercula of sea-shells. In bad weather they also wear raincoats of split rattan.

The women wear excessively short skirts wrapped about the body far below the waist and often not extending more than half way to the knee. A fold in the upper part of



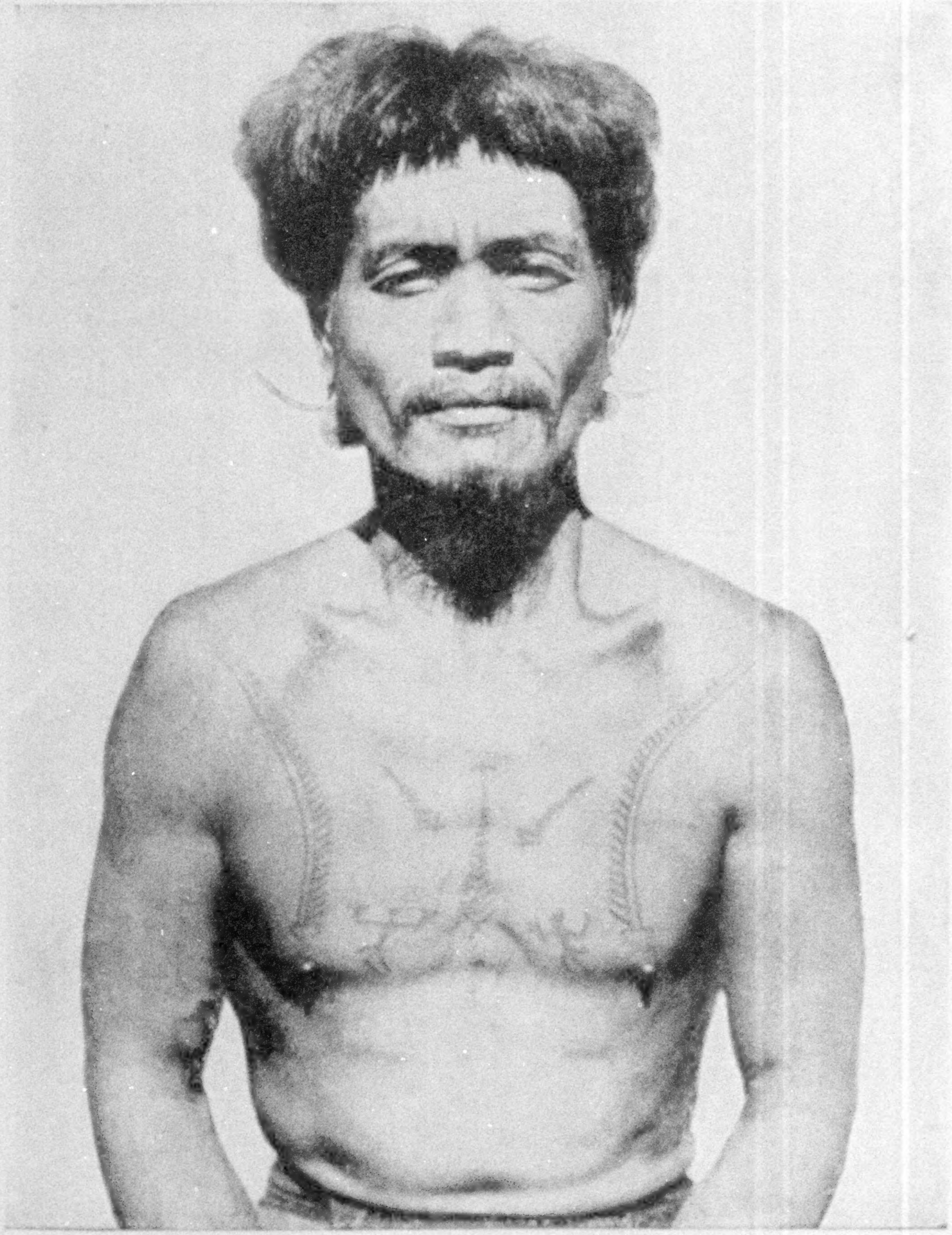
A YOUNG IFUGAO WARRIOR READY FOR THE TRAIL

Note his peculiar belt and his split rattan rain-coat, his pipe, and earrings (see page 883)



AN IFUGAO

Showing typical tattoo pattern extending high on the neck. He was not altogether sure that he desired to be photographed



AN IFUGAO

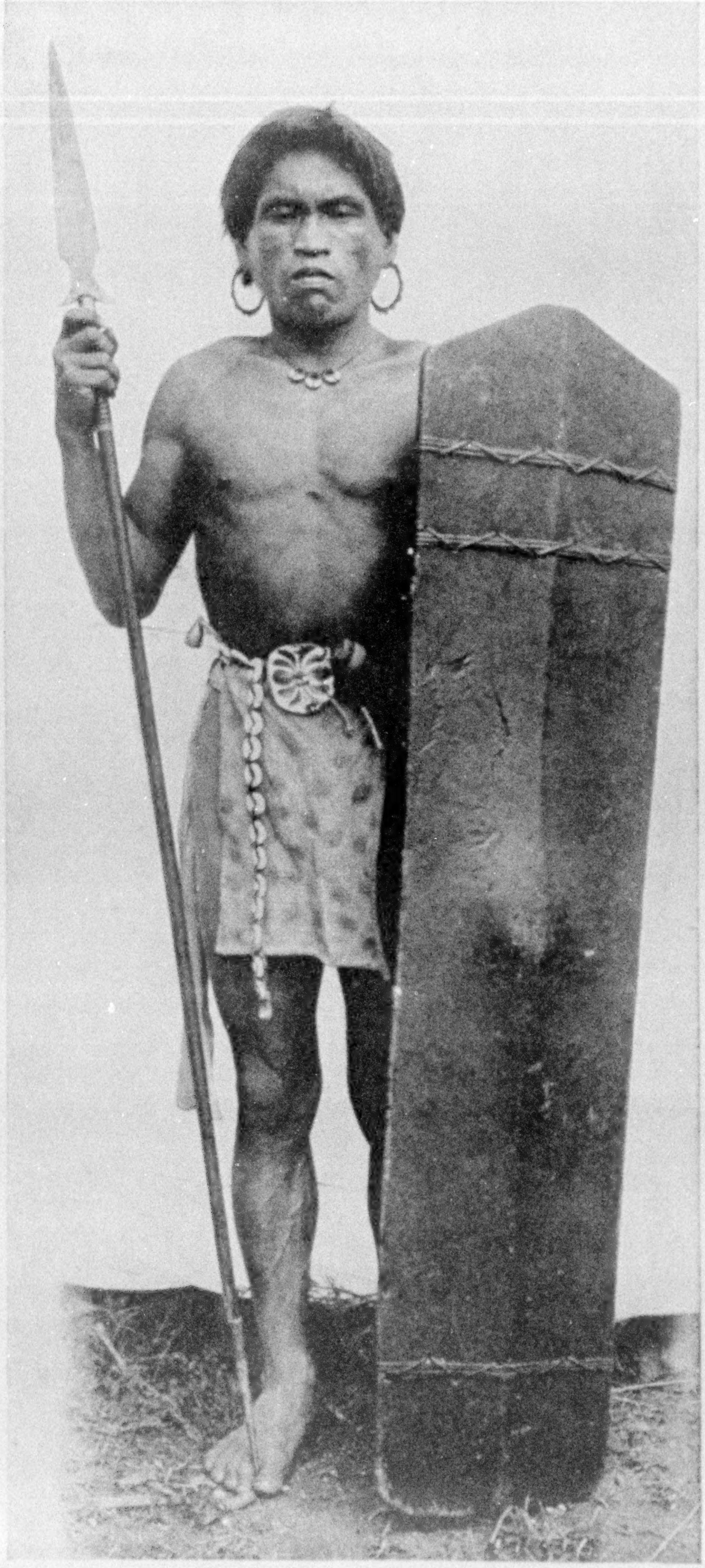
Note the conventional dancing men tattooed on his chest. These patterns are entirely different from those of the Kalingas or Bontoc Igorots (see page 879).

XUM

the skirt serves in lieu of a pocket. Upper garments of any sort are the very rare exception. The women allow their hair to grow long, and do not cut it in any way. Sometimes it hangs down their backs; sometimes it is coiled about their heads in simple fashion. It may be fastened up with strings of beads; but the women, like the men, usually have few if any ornaments. Both are inordinately fond of great spiral coils of thick brass wire, the men wearing them on their legs, the women on their arms.

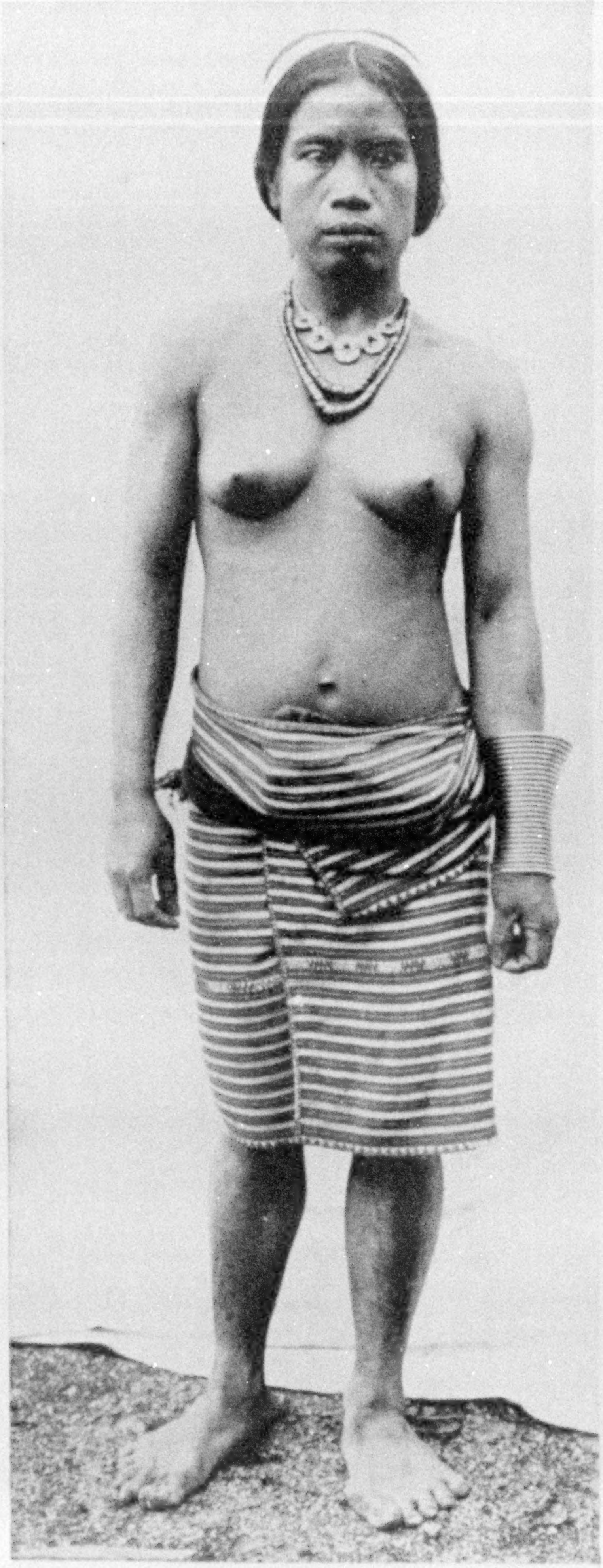
The Ifugao house is small but well constructed. It stands upon four or more posts firmly imbedded in the ground. The posts are sometimes carved, and are almost invariably provided with projecting shoulders, which prevent rats from climbing into the houses. The floor is usually of boards, and the sides are of boards or of bamboo basket-work. The roof is well and thickly thatched. The average house has but one small door and no windows. Its interior is, of course, necessarily dark, and is made more so by the soot from the pitch-pine fire, which is usually kept burning on a rudely constructed hearth. Door-posts and even the under surfaces of floor-boards are sometimes ornamented with rude wood carvings (see pages 884, 885).

Each house has a storeroom and a living-room, the former in the peak of the roof above the latter. The storeroom is reached by means of a short ladder. It serves as a depository for rice, other foodstuffs,



AN IFUGAO WARRIOR

These fighters carry beautifully fashioned and deadly steel-headed lances. Note the battered but serviceable shield



AN IFUGAO WOMAN

The women wear excessively short skirts wrapped about the body below the waist. A fold in the upper part of the skirt serves as a pocket (see page 879).

and a miscellaneous assortment of household goods. Under the houses of wealthy Ifugaos huge carved wooden resting-benches, called "tagabi," are usually to be seen (see picture, page 885).

Although many portions of the Ifugao territory are very thickly inhabited, there is not a single large town. The houses are grouped in tiny villages, which usually occupy strategic positions among the wonderful rice terraces on the steep mountain sides, so that access to them in the face of opposition is well nigh impossible unless the would-be callers are well provided with firearms and ammunition.

HYDRAULIC ENGINEERING AMONG SAVAGES

The Ifugao may be a barbarian, but he is an excellent hydraulic engineer. His irrigation ditches, running for miles along almost perpendicular mountain sides, and his marvelous rice terraces, which sometimes extend upward on the steep slopes for thousands of feet and have dry stone retaining walls 10 to 40 feet in height, are the wonder of all who have seen them. Furthermore, the earth of those terraces is fertilized, and the growing rice is thoroughly weeded and well cultivated. The crop, which is harvested by cutting the heads one at a time, is often tremendous.

Yams are also grown on the steep mountain sides, but the Ifugaos care little for sugar-cane and seldom trouble to raise it. They utilize rice in making an excellent fermented drink known as *bubud*. They keep chickens, dogs, and pigs, but no cattle.

The Ifugaos make good lance-heads and war-knives. They also carve wood with some skill and weave very serviceable wicker baskets. The women make cloth.

The Ifugaos, like the Kalingas, have until very recently been inveterate head-hunters. When I first entered their territory, in 1903, many of their houses were ornamented with fresh human skulls,

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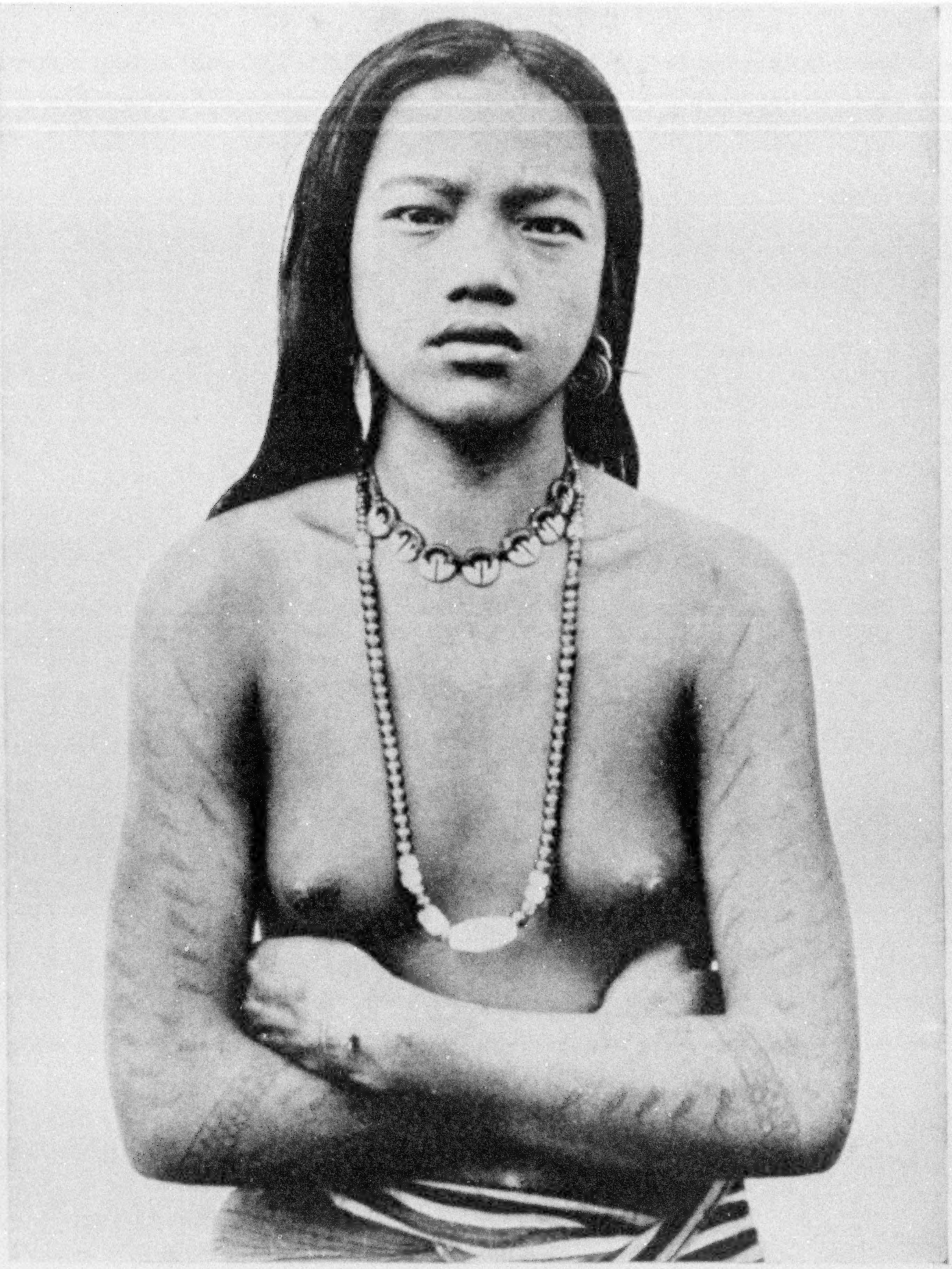

IFUGAO GIRL

Her ear ornaments and the pieces composing the shorter of the necklaces about her neck are made of copper. Tattooing is common among both sexes, the women decorating only the arms (see page 879).

and I saw various unfortunate victims of head-hunting raids.

EXHIBITING GORY TROPHIES

When an Ifugao war party returns with a head, it executes a ceremonial march, or dance—one hardly knows which to call it—which defies successful description. The men have their split-rattan raincoats on their backs. On the insides of these raincoats are pockets, which form convenient receptacles for gory trophies. The warriors carry beautifully fashioned and deadly steel-headed lances and serviceable, plain board shields, strengthened by rattan lashings to prevent splitting. Zigzag white marks are painted on the shields, indicating a ceremonial occasion.

The warriors do not approach stand-

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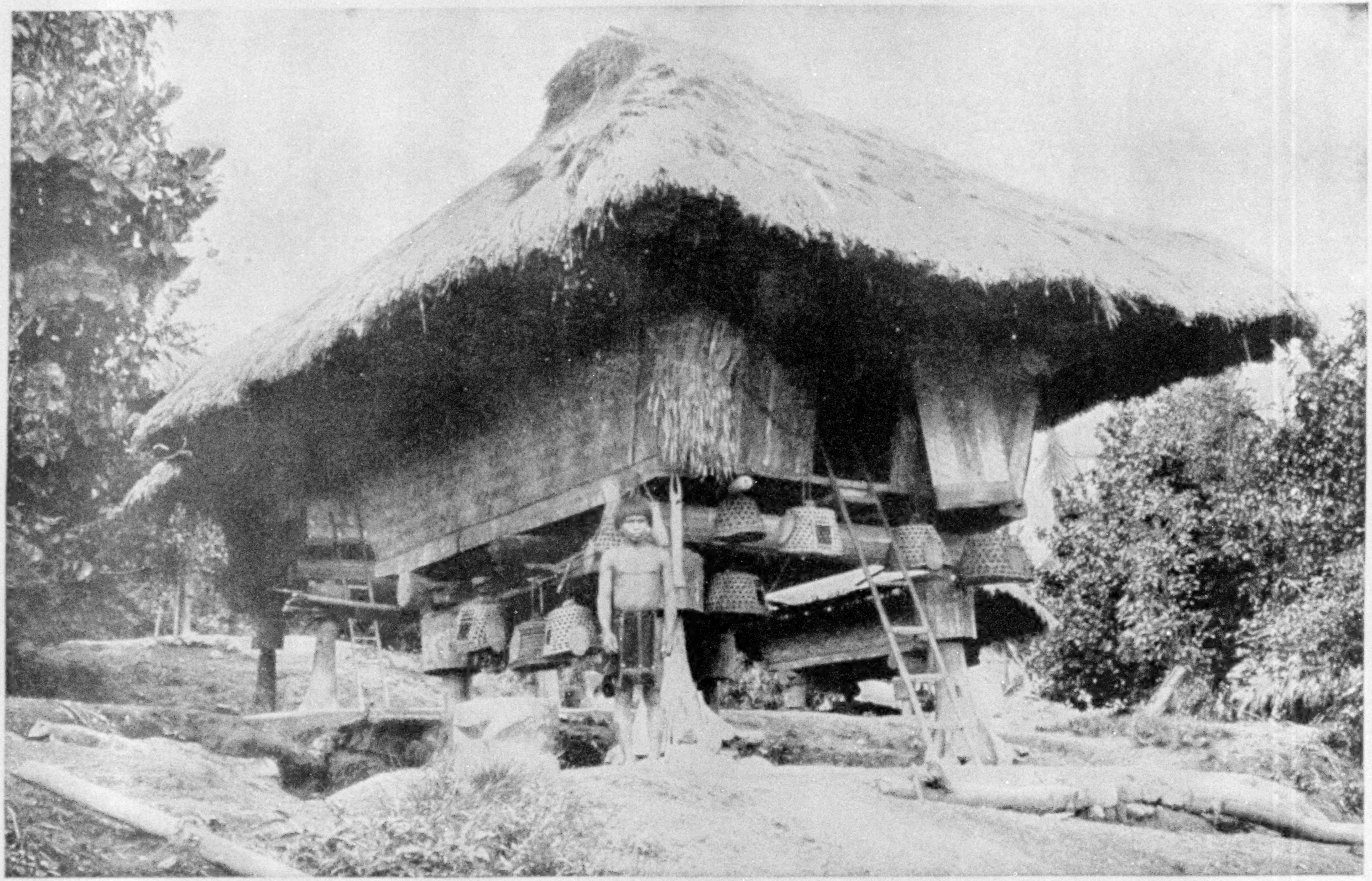
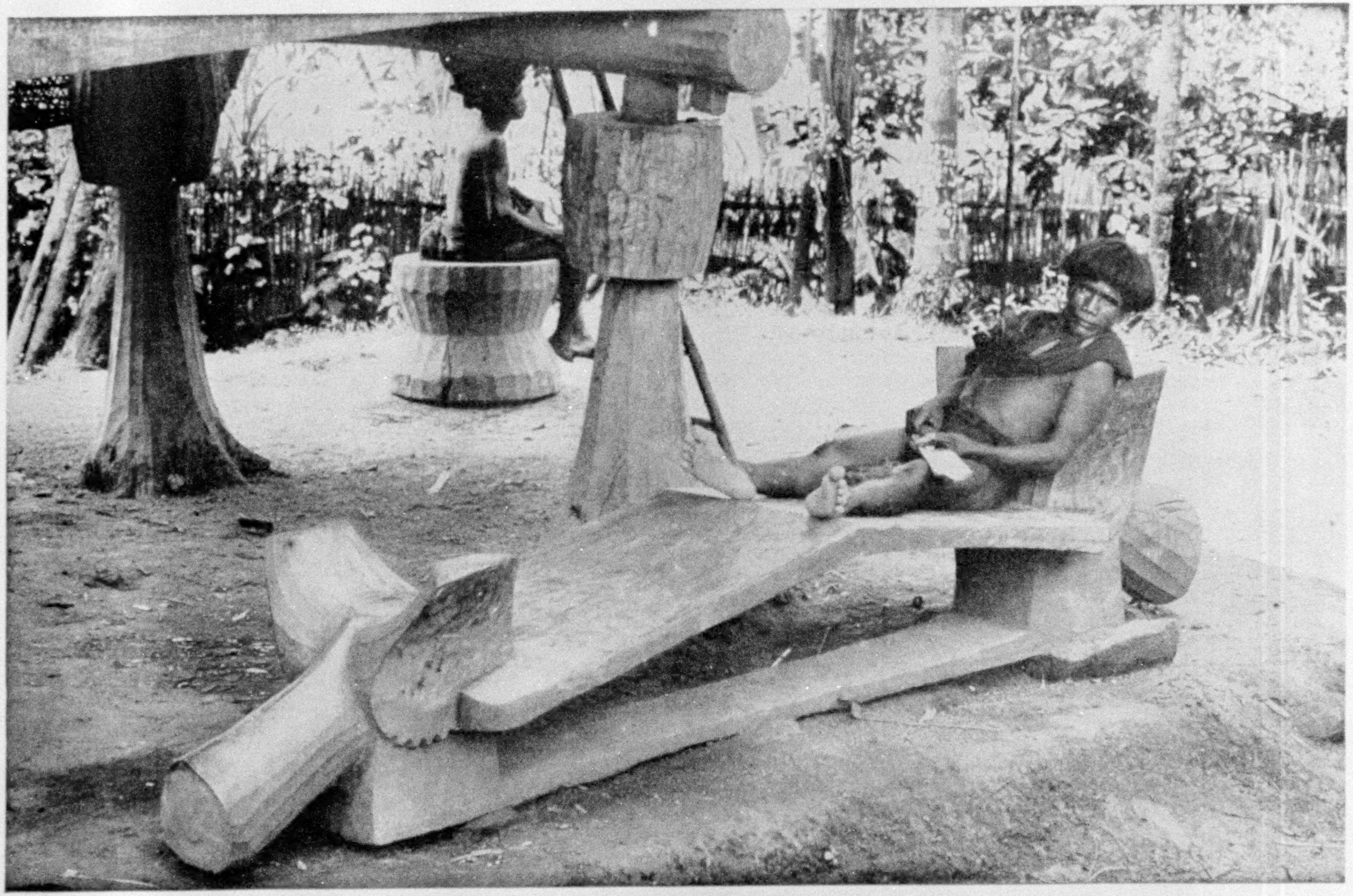


AN IFUGAO HOUSE

The Ifugao houses are small but well constructed, standing upon four or more posts, which are sometimes quaintly carved, and are invariably provided with projecting shoulders to prevent rats and other small animals from gaining entrance into the house (see pages 881, 885)



AN IFUGAO RESTING BENCH

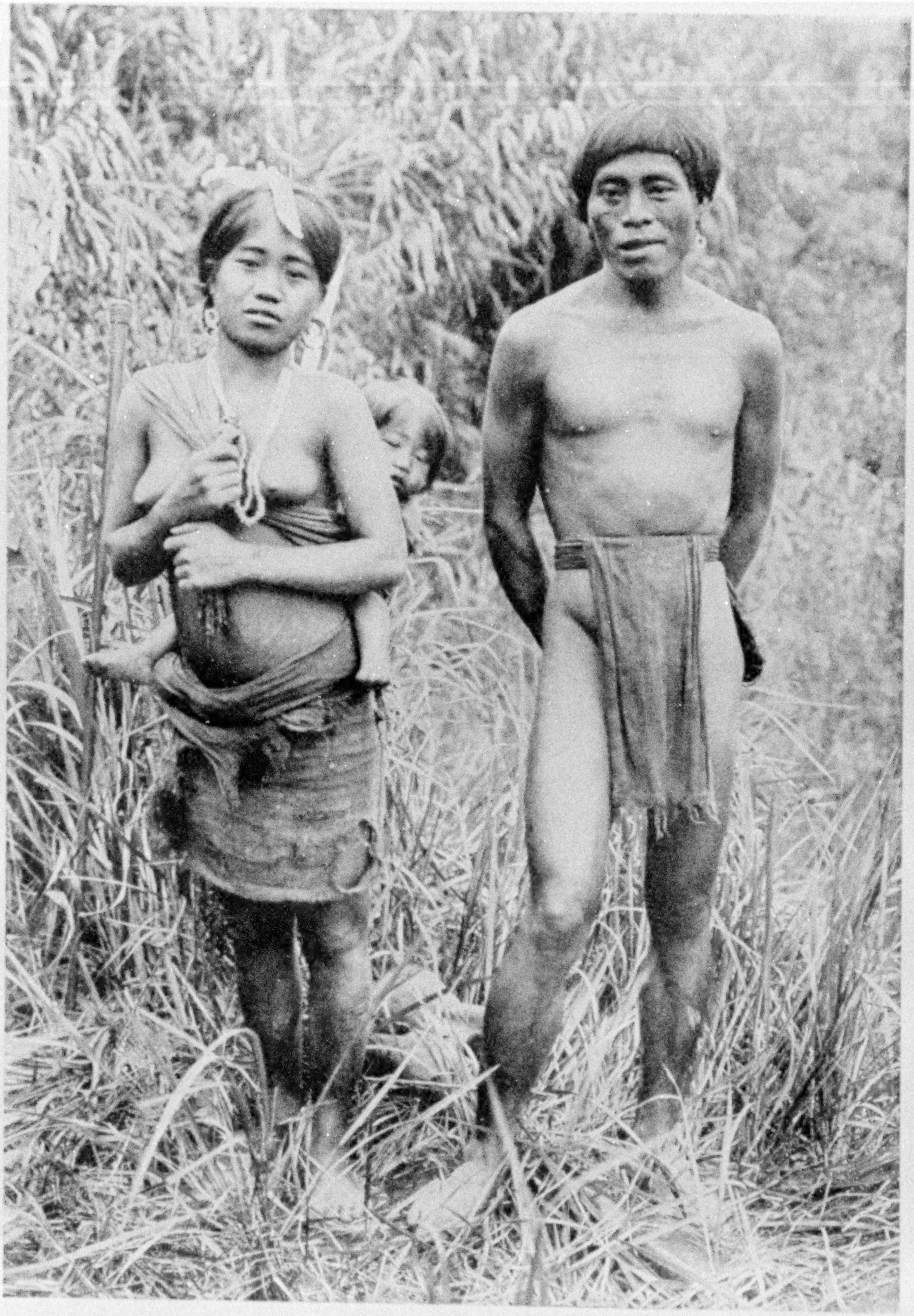
Note also two carved supporting posts of a house. Shoulders have been left on them to keep out animal intruders (see illustration on page 884, and text, page 881)

IFUGAO GIRLS ASSISTING EACH OTHER IN TOILET

The women allow their hair to grow long, generally wearing it hanging down their backs (see page 881)

ing, but creep along the ground, and in this position execute a sort of lockstep, beating upon their shields with billets of wood and bending in perfect unison far to the right and then far to the left. Some of the men make threatening motions with their lances. It is impossible for me to describe the weird effect produced, but I hope yet to be able to use a moving-picture camera on a file of men engaging in this strange ceremonial, which they will doubtless soon forget, as head-hunting has now practically ceased among them.

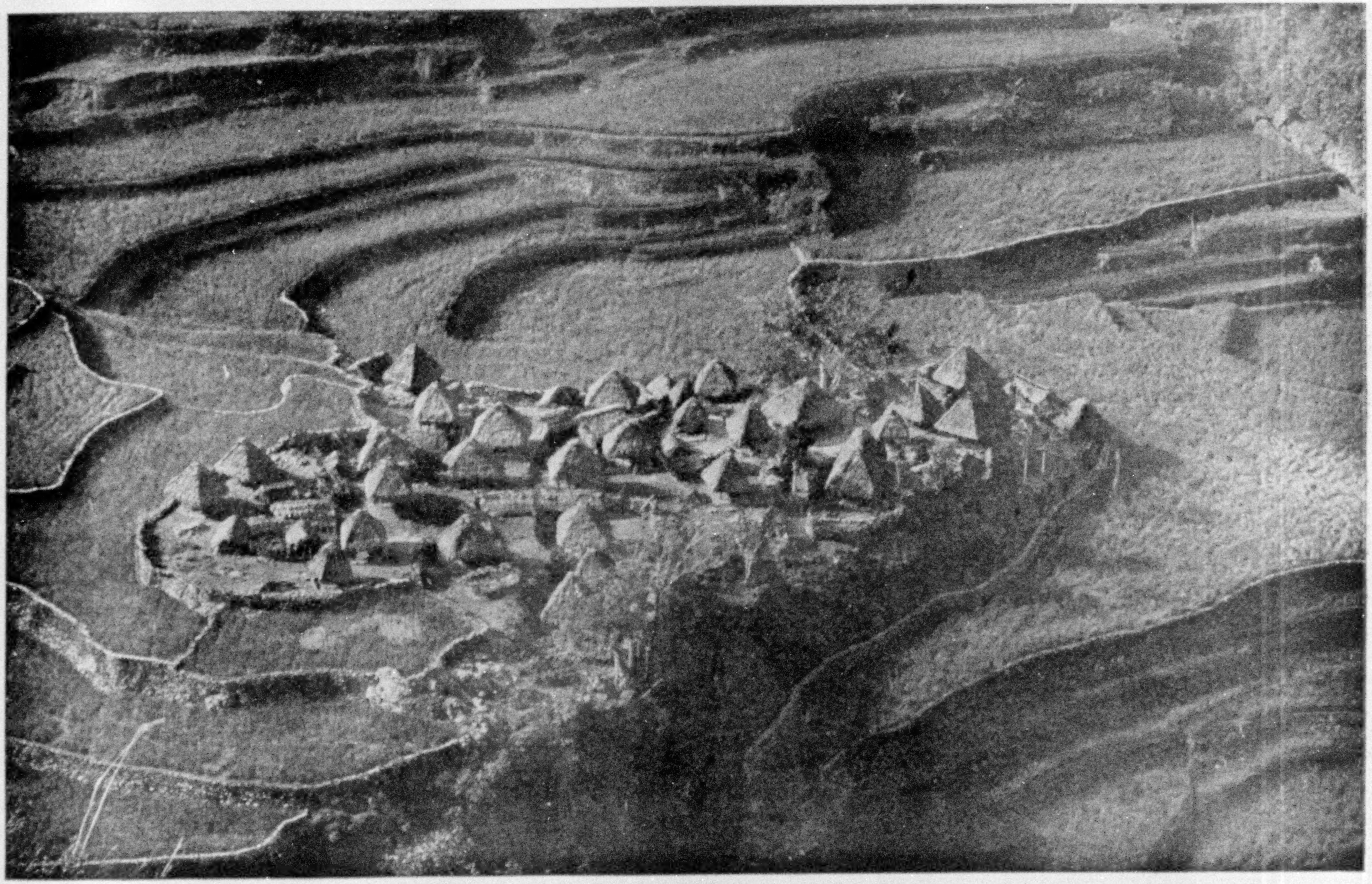
When the dancing ground is reached the head is impaled upon a short stake and the warriors circle around it in the characteristic war dance of this tribe. Some of them take off their ornaments and hang them on the head, at the same



AN IFUGAO FAMILY ON THE MARCH

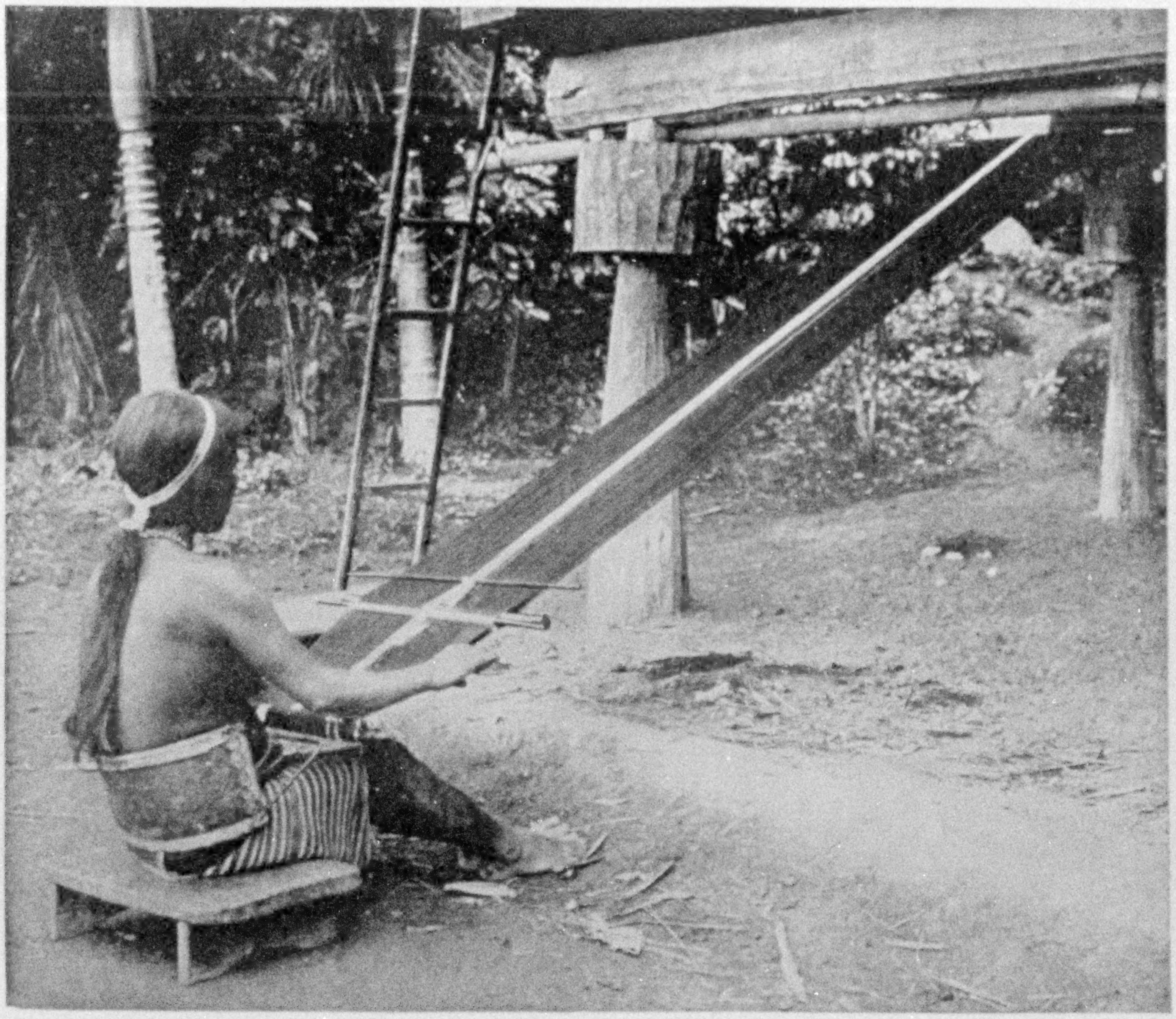
Their field equipment is very light and they cover distances very quickly. Even the baby is interested in what is going on

XUM



AN IFUGAO VILLAGE

Note rice terraces surrounding the village. Although many portions of the Ifugao territory are thickly inhabited, there is not a single large town, the houses being usually grouped in small villages (see page 882)



AN IFUGAO WOMAN MAKING CLOTH

The Ifugao men carve wood with some skill and weave serviceable wicker baskets. The women make cloth as shown above

time jeering at it as if it were capable of hearing and understanding them. Dancing and feasting may last for days.

Ultimately the skull, which has not been mutilated in any way, is boiled and thoroughly cleaned. The lower jaw is fastened in place with rattan and the trophy is taken home by the man who won it. It serves him as a household ornament. It may be placed with other skulls on a board shelf beside the door of his house; it may find a resting place within, over the fireplace; it may be placed outside at one corner with the skulls of carabaos and pigs which have been eaten at feasts.

I have seen a house with a tasteful ornamental frieze of alternating carabao skulls and human skulls extending around it at the height of the floor! I have seen others with great open-work baskets of skulls hanging under the eaves.

THE ONE FAMILY DISGRACE

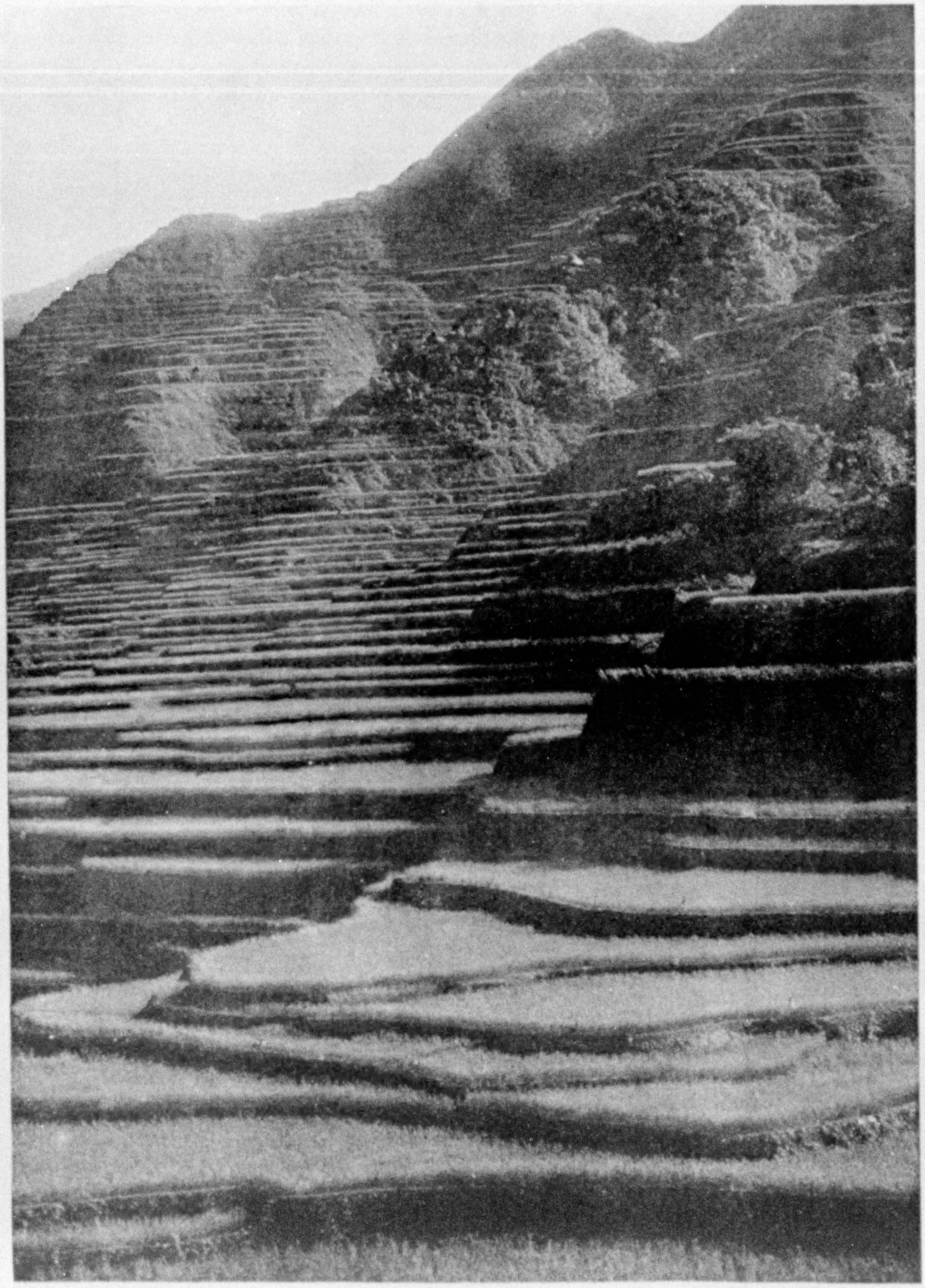
A man who loses his head is considered to have treated his family and friends somewhat shabbily. He is not buried as an ordinary person would be, but is carried to a resting place on some hillside far from his native village. A tunnel is excavated in the earth, his body is carried into it and placed in a sitting position, and the tunnel is then filled. A lance is thrust into the ground over the grave to show that he was killed in war, and an *anito* image, rudely fashioned out of grass, may be left to watch over his last resting place.

I once attended the funeral of an

XUM

A MOUNTAIN SIDE TERRACED AND IRRIGATED BY HEAD-HUNTING IFUGAOS

Their irrigating ditches run for miles along nearly perpendicular mountain sides, and wonderful rice terraces extend upward on steep slopes for thousands of feet (see text, page 882)



IFUGAO RICE TERRACES AT HARVEST TIME

Note the village in the midst of the terraces in the upper part of the picture. The savages, who display such skill and patience in building these terraces, were ruthless head-hunters

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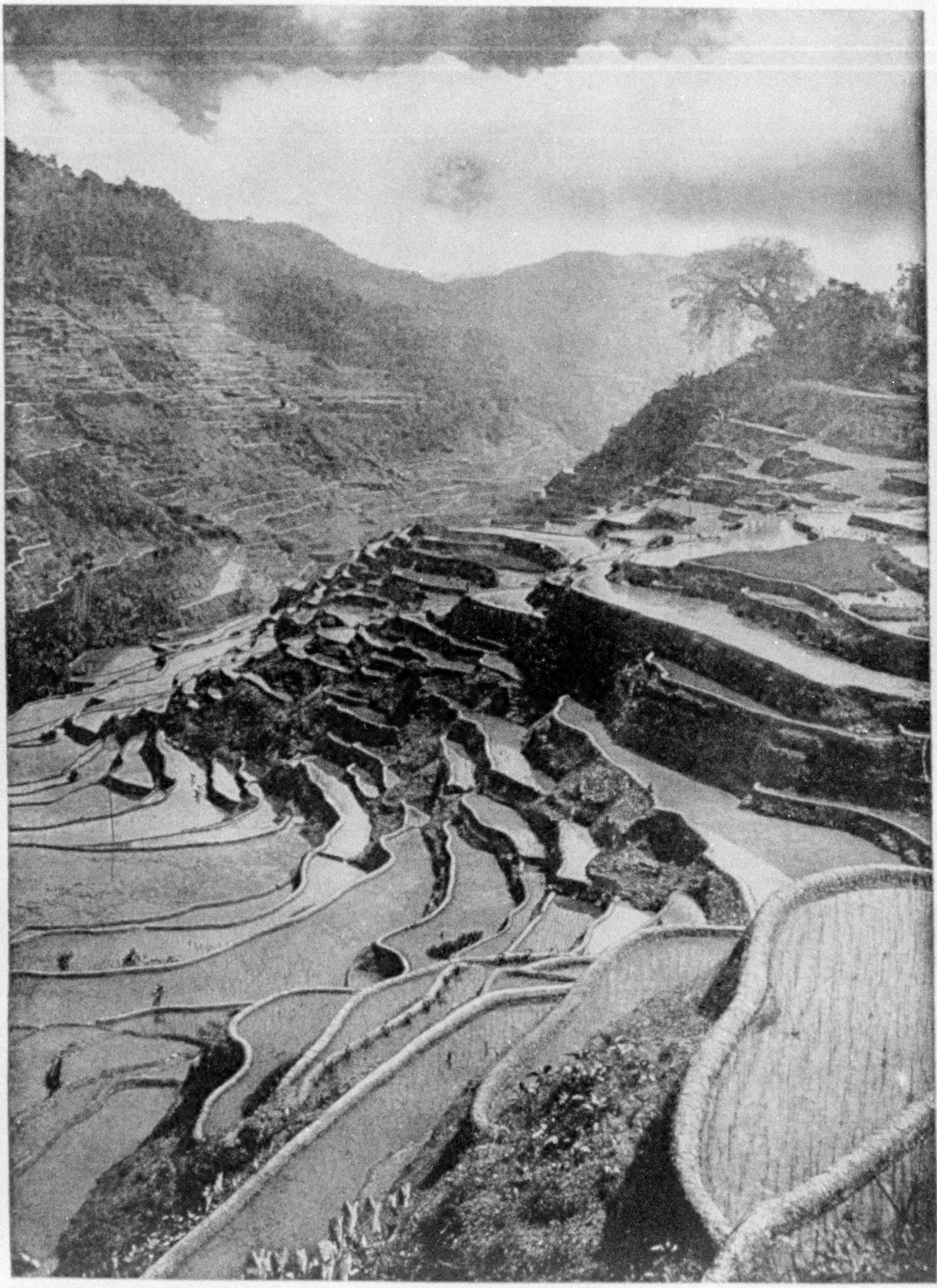
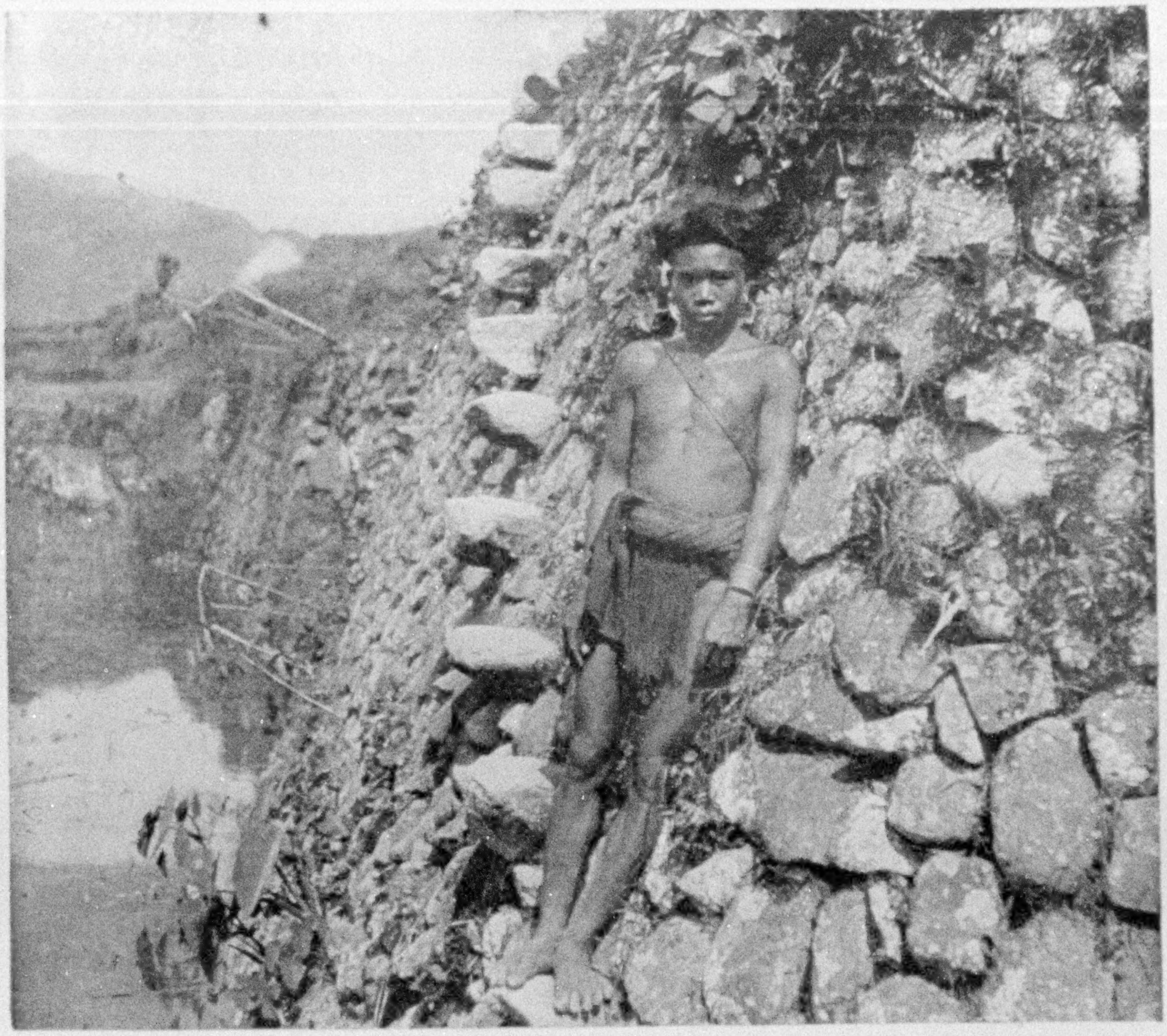


IFUGAO RICE TERRACES AT PLANTING TIME

The Ifugao may be a barbarian, but he is also an excellent engineer



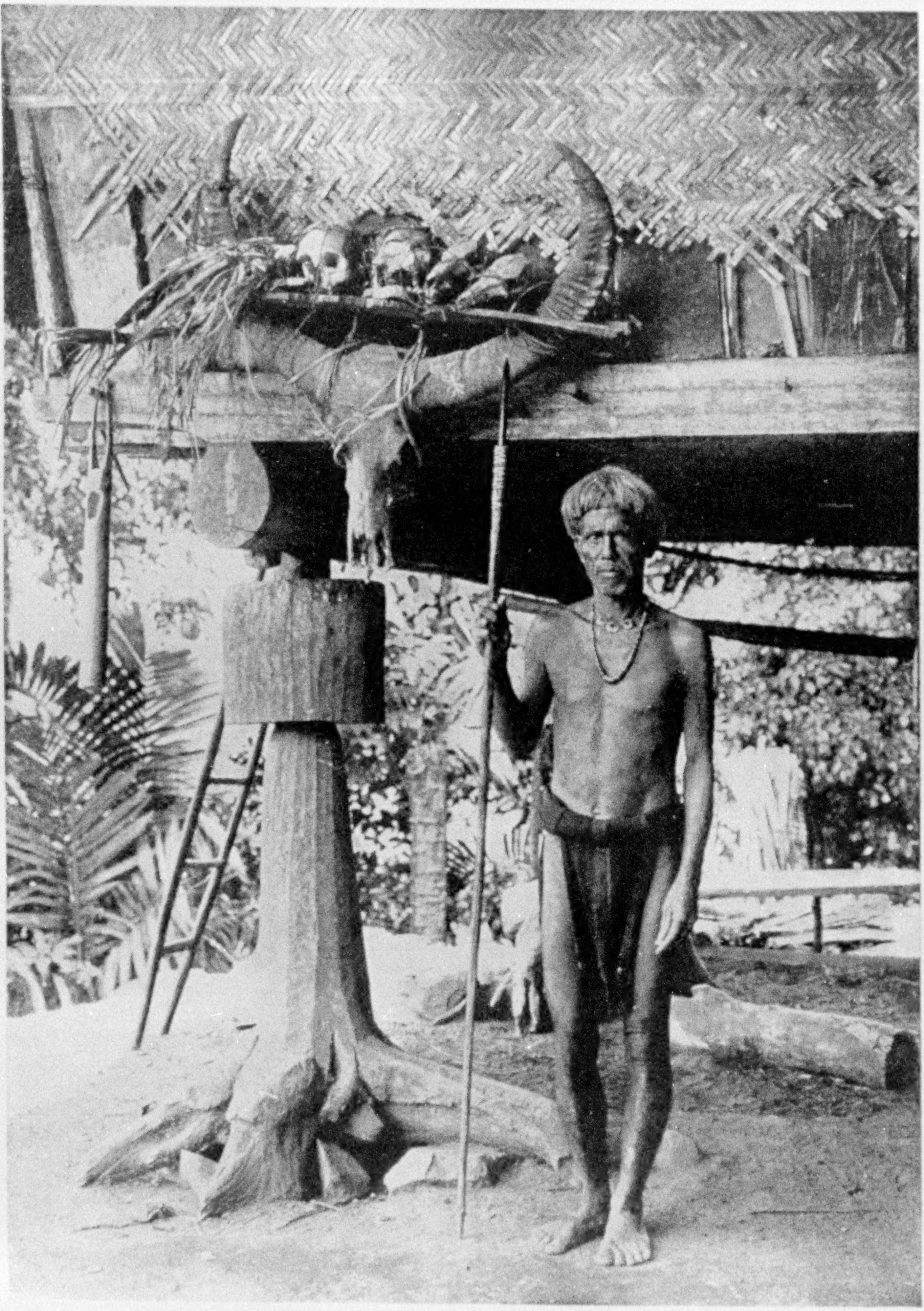
A TYPICAL IFUGAO RICE PADDY WALL, SHOWING STEPS USED IN ASCENDING TO TERRACES ABOVE (SEE PAGE 882)

Ifugao who had lost his head. He was borne to his grave on his shield, which was suspended from a pole by means of rattans. The shield had been split in the fight which cost him his life. His body was covered with gaping wounds.

The mourners followed in single file, the men carrying black shields with zigzag white marks painted on them. An old man at the head of the column beat a series of tattoos on a piece of resonant wood. The other men repeated his performances exactly, in each case drumming on their shields with pieces of wood. When the open grave was reached the body was deposited on the ground. The neighbors shouted to the spirit of the dead man, asking him why he had been careless enough to get himself killed, and why he had left his poor old mother and a house full of rice and tobacco. Even the gray-headed mother herself berated her careless son. Presently the men produced a death blanket, in which they chopped holes with their war-knives, at the same time assuring the dead man that they would serve his enemies as they were serving the blanket. The blanket was then used to bind his hands and arms against his body, which was then promptly buried, the site of the grave being marked with white head-dresses which had been worn to the funeral and which were tied in a bunch to a pole placed over the mouth of the grave.

THE BONTOC IGOROTS

The Bontoc Igorots inhabit a subprovince in central northern Luzon which bears the name of the tribe. They num-



AN IFUGAO HEAD-HUNTER WITH SOME OF HIS TROPHIES

Evidently in the opinion of this warrior, "Heads is heads," whether human or animal (see page 889)

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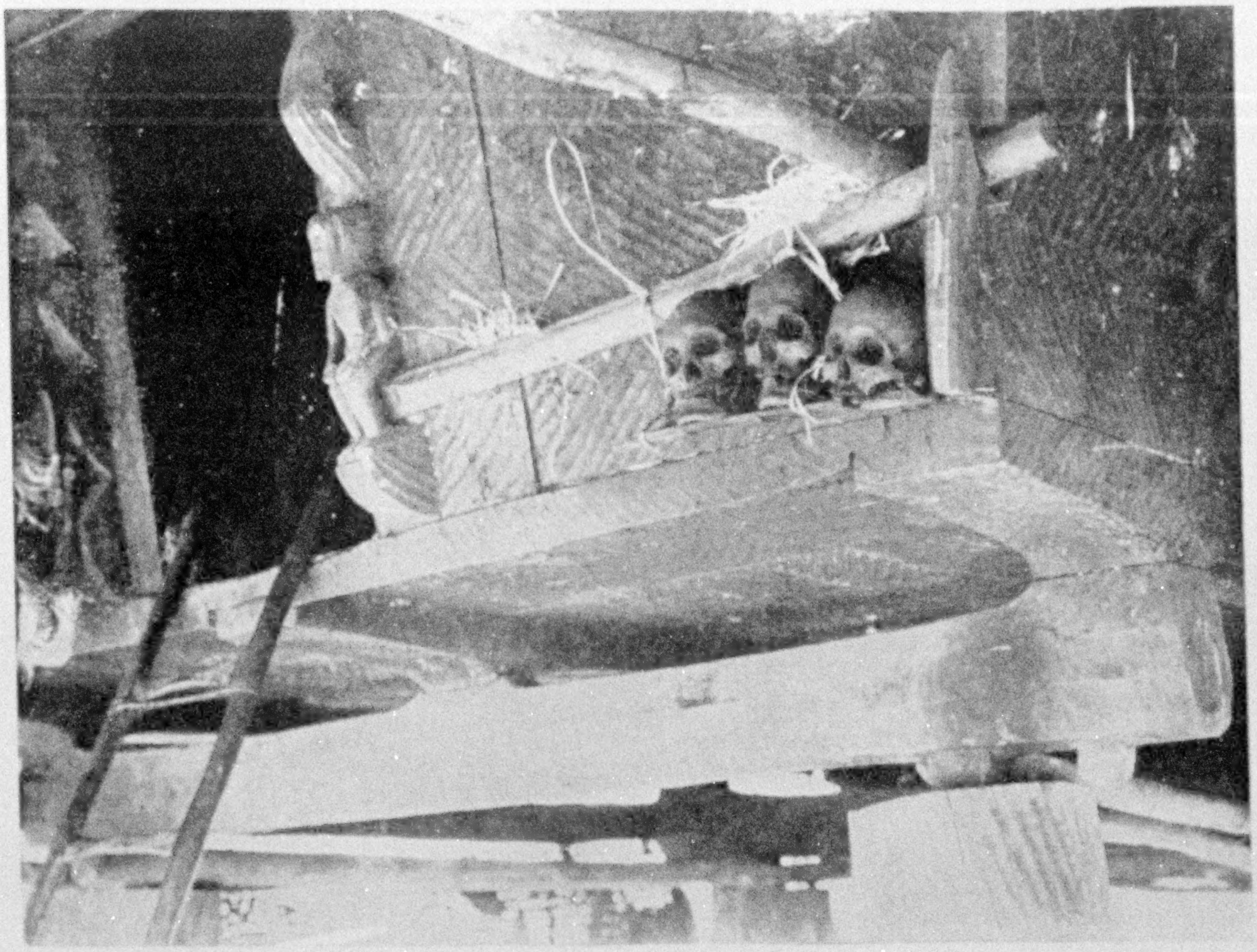


IFUGAO TROPHIES

A small but select collection of former enemies. Note the image which the Ifugao has rudely carved as a decoration for his door (see page 889)

ber some 76,000 souls. Like the Kalingas and Ifugaos, they have until recently been inveterate head-hunters. Indeed, they still take some human heads each year, although the number is now very small. They are physically a wonderfully developed people, as tall as the Kalingas and on the average more heavily built than either the Kalingas or the Ifugaos.

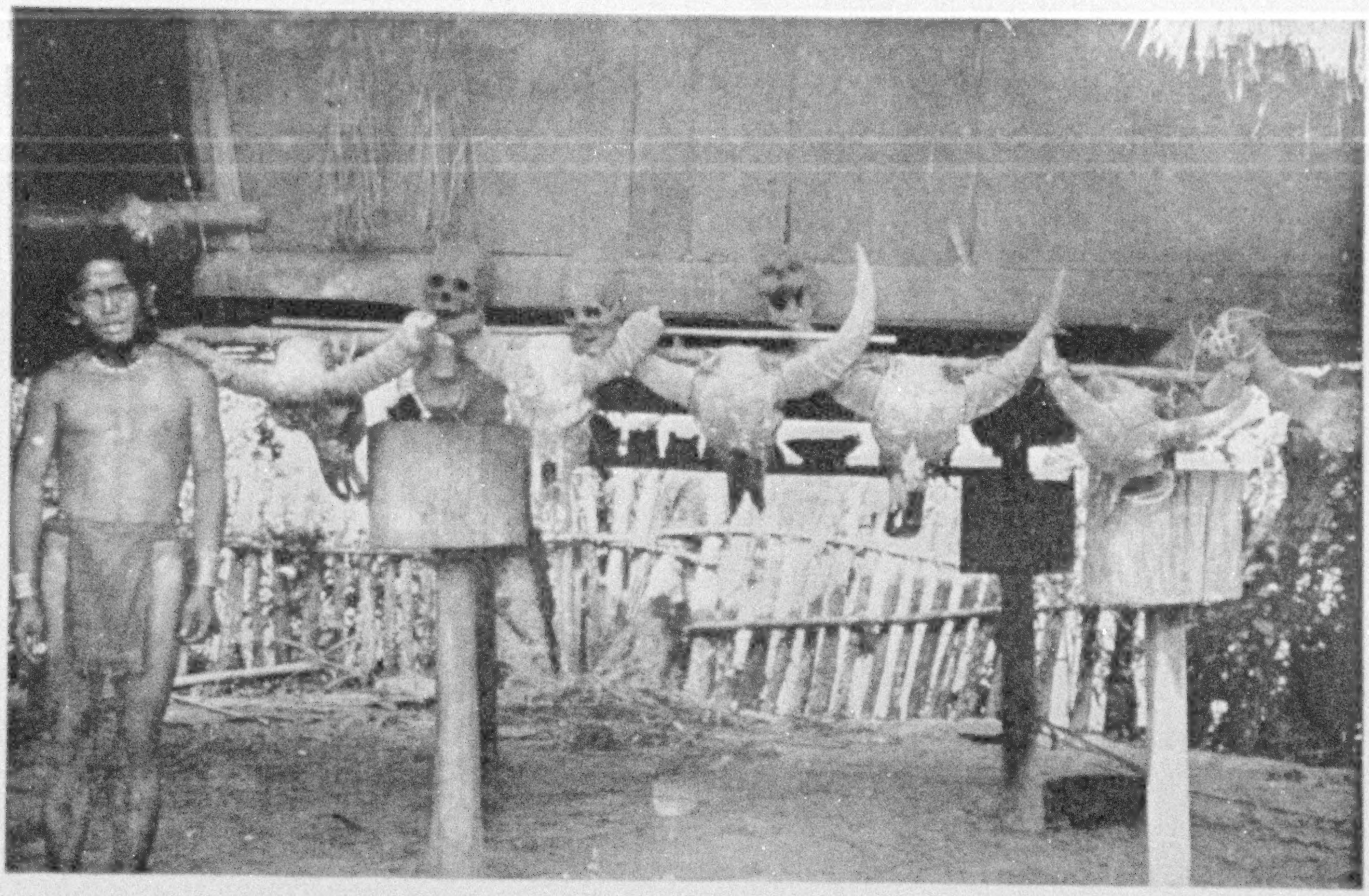
The men tattoo freely their chests and arms, and often their faces and backs as well. Formerly only those who had participated in successful head hunts were allowed to tattoo, but this rule is no longer strictly adhered to. Their clothing is usually limited to small, dingy, unornamented clouts, and sometimes even to small aprons, although a good many of them have cotton blankets, which they use to protect themselves against wind and rain. They wear few ornaments.

Very many of them produce huge holes in the lobes of their ears, first cutting a small opening into which pieces of wood the size of tooth-picks or matches are forced, stretching it little by little until it becomes an inch or more in diameter. Ear plugs or other ornaments are placed in the openings thus formed, which incidentally serve as depositories for cigars and other small objects. Indeed, I have more than once seen a man roll up a pack of playing cards and put it, for safe keeping, in the hole in his ear!

The men are also particularly fond of pearl-oyster shells ornamented with scratch-work patterns. These they usually fasten at their waists. Brass tobacco pipes are often thrust into the hair, which is "banged" on the forehead but allowed to grow long behind, where it is usually confined in a jaunty cap beautifully woven from scarlet, yellow, and brown or black rattan.

Dogs are a favorite article of food with these people, and necklaces made of

XUM



AN IFUGAO HEAD-HUNTER

His house has an ornamental frieze of skulls running around it at the height of the floor, of which he is very proud

dog's teeth or of crocodile's teeth are much in vogue.

The dress of the women almost invariably consists of a narrow skirt reaching from the waist, where it is fastened by a girdle, to the knee, and open up one side. Upper garments are practically unknown except in regions where the inhabitants have come much in contact with Filipinos. Women commonly tattoo the arms and hands only. They have ear ornaments similar to those of the men, and wear necklaces made of dog's or crocodile's teeth, brightly colored seeds, and beads.

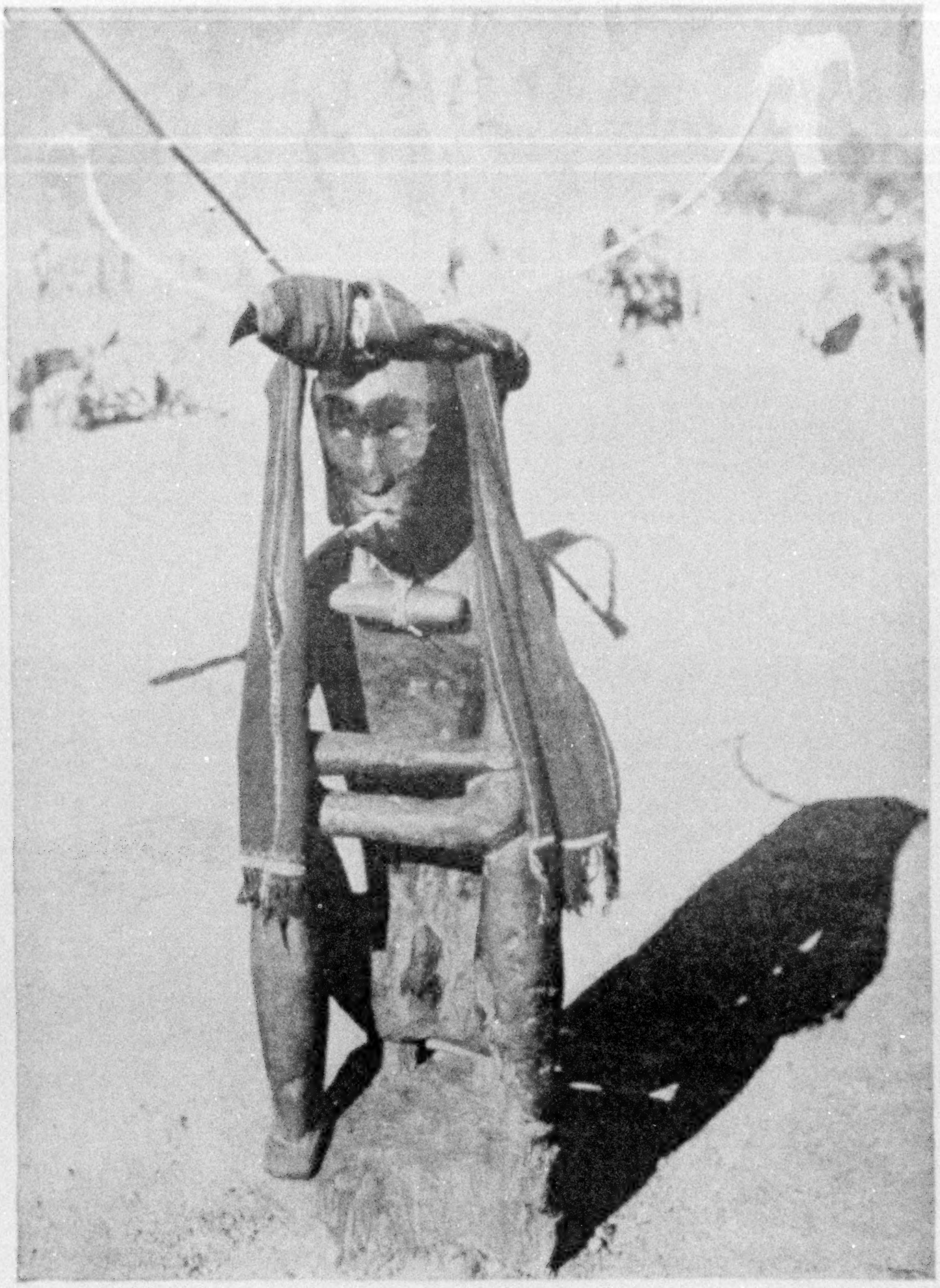
They do not cut the hair, but allow it to grow long. Some of them wear large switches made of hair from their dead ancestors.

WELL-FASHIONED WEAPONS

The Bontoc Igorots not only fashion well-shaped head-axes and lances, but make and burn good earthen pots and artistic clay pipe-bowls. The people of Mayinit make salt; those of Samoqui make excellent earthen pots. The women of a number of towns near the Lepanto border weave blankets, and many of the other women make strong, serviceable cloth from thread of twisted bark fiber. Some of the men cast and finish rather elaborate brass pipe-bowls, and there are some other small manufacturing industries.

A number of distinct types of houses are to be found among the Bontoc Igorots, and this is not to be wondered at, as their territory abuts on that of the Lepanto Igorots on the southwest and upon that of the Tingians and Kalingas on the west and the north. From the Ifugaos on the east they are separated by a high mountain range. Along the borders of their territory their houses resemble more or less those of the neighboring tribes, but the commonest type of house has a fairly high roof, within which is a storeroom, and is without sides, the floor being of dirt and inclosed by a low wall of boards, resembling a tight board fence. This does not reach up to the overhanging roof. The house is entered by a sort of gate at one end.

There are two stalls separated by a low partition on the left. In one of these



AN IFUGAO ANITO IMAGE AROUND WHICH DANCES ARE HELD

The carving is quite rude, but they are very particular about the head dress

food is prepared and in the other it is cooked. To the right there is a bench for the accommodation of the family, when they wish to sit rather than squat, and extending across the end opposite the entrance there is a boxlike structure perhaps 2½ or 3 feet high and 3 feet wide. This is the sleeping-box, to which access is had by means of a low door. At one end of it there are usually loose boards on the ground.

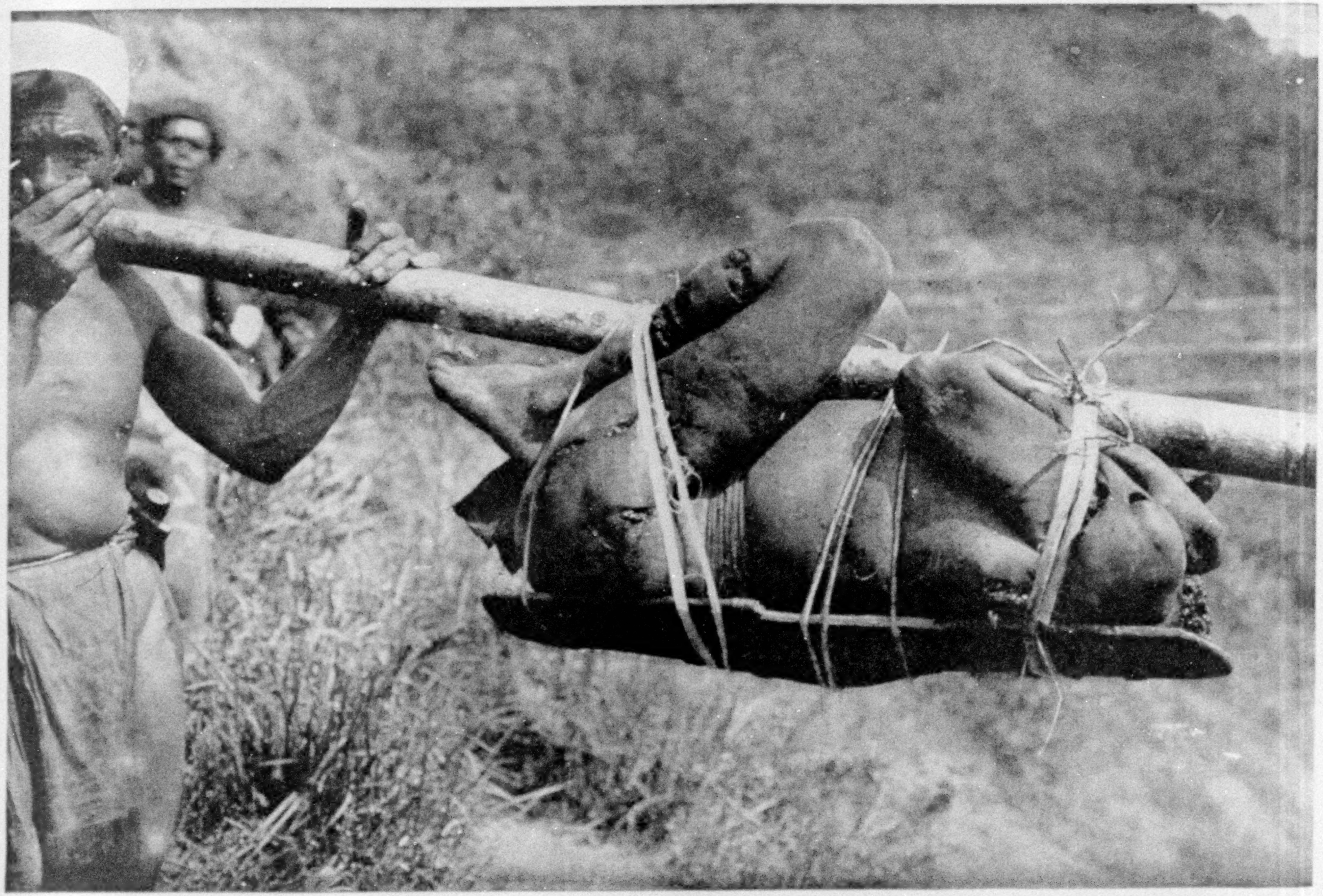
Father, mother, and children crawl into this suffocating place at night, and, after building a fire on the dirt at the further end of the box, sleep on the boards, or attempt to do so. It is hardly to be wondered at that eye diseases are very prevalent among the Bontoc Igorots.

Their houses are grouped in large villages, and their occupants depend for protection upon their large forces of fighting men rather than upon inaccessibility.

DOMESTIC ANIMALS

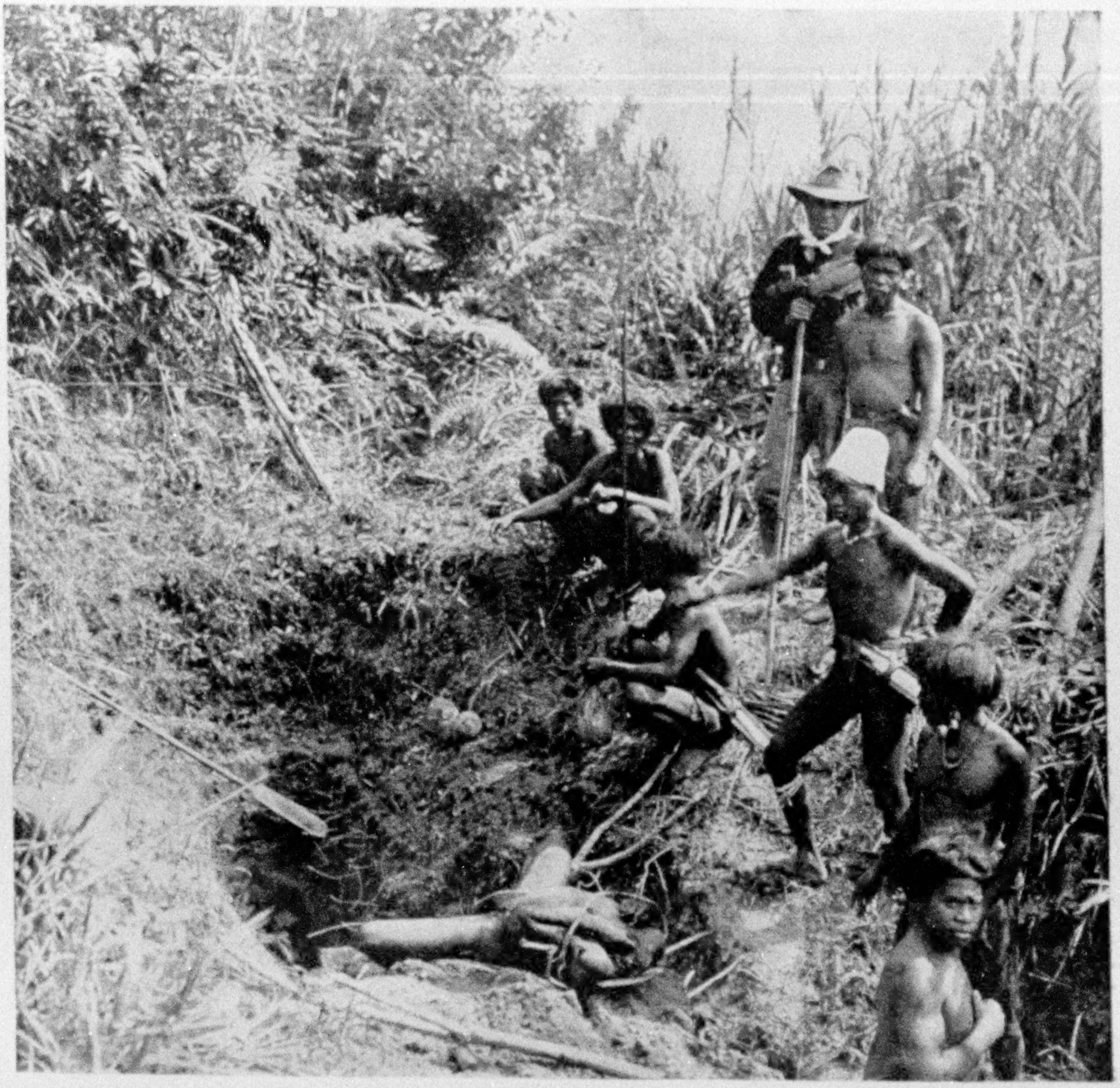
The Bontoc Igorots are naturally a dirty people. Both their persons and their houses are usually filthy. They keep dogs, hogs, and chickens. The hogs are provided with pens consisting of depressions in the ground walled up with stone. Connected with these there are good houses, which afford the swine excellent protection against inclement weather. Pork is eaten only on ceremonial occasions, and hogs are carefully

XUM



AN UNLUCKY IFUGAO HEAD-HUNTER WHO LOST HIS OWN HEAD AND THEREBY BROUGHT DISGRACE UPON HIS FAMILY AND VILLAGE

Secretary Worcester attended this man's funeral (see text page 893)



BURIAL OF AN IFUGAO WHO HAS LOST HIS HEAD

To lose one's head is considered a terrible family disgrace, so that the burial of the offender is a most unceremonious affair (see page 889)

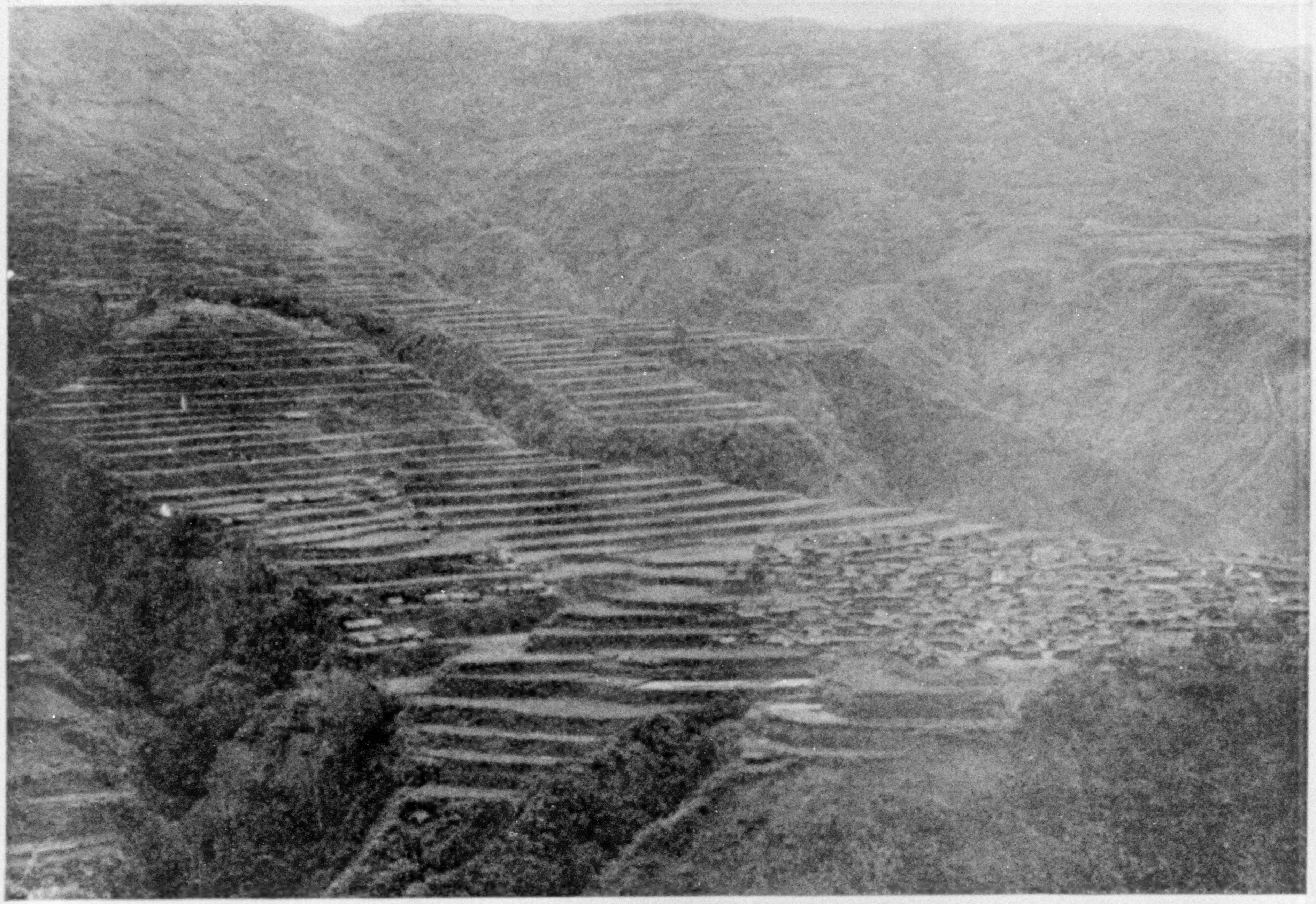
fed in stone or wooden troughs. Most of the house refuse goes into the hog-pens, and, with the accumulated manure, is ultimately carried out to fertilize the rice fields.

Not a few wealthy Igorots own carabaos in considerable numbers. They never use them for draft animals, but allow them to run half wild until they are wanted for food on ceremonial occasions. Chickens are also eaten only in connection with religious or semi-religious ceremonies.

Like the Ifugaos, the Bontoc Igorots are fairly capable, hard-working agriculturists. They make the bare mountain sides yield them a reasonably abundant supply of vegetable food, building wonderful systems of irrigated rice terraces in places where water is to be had, and planting yams where water is not available. They also grow limited quantities of millet, beans, and corn.

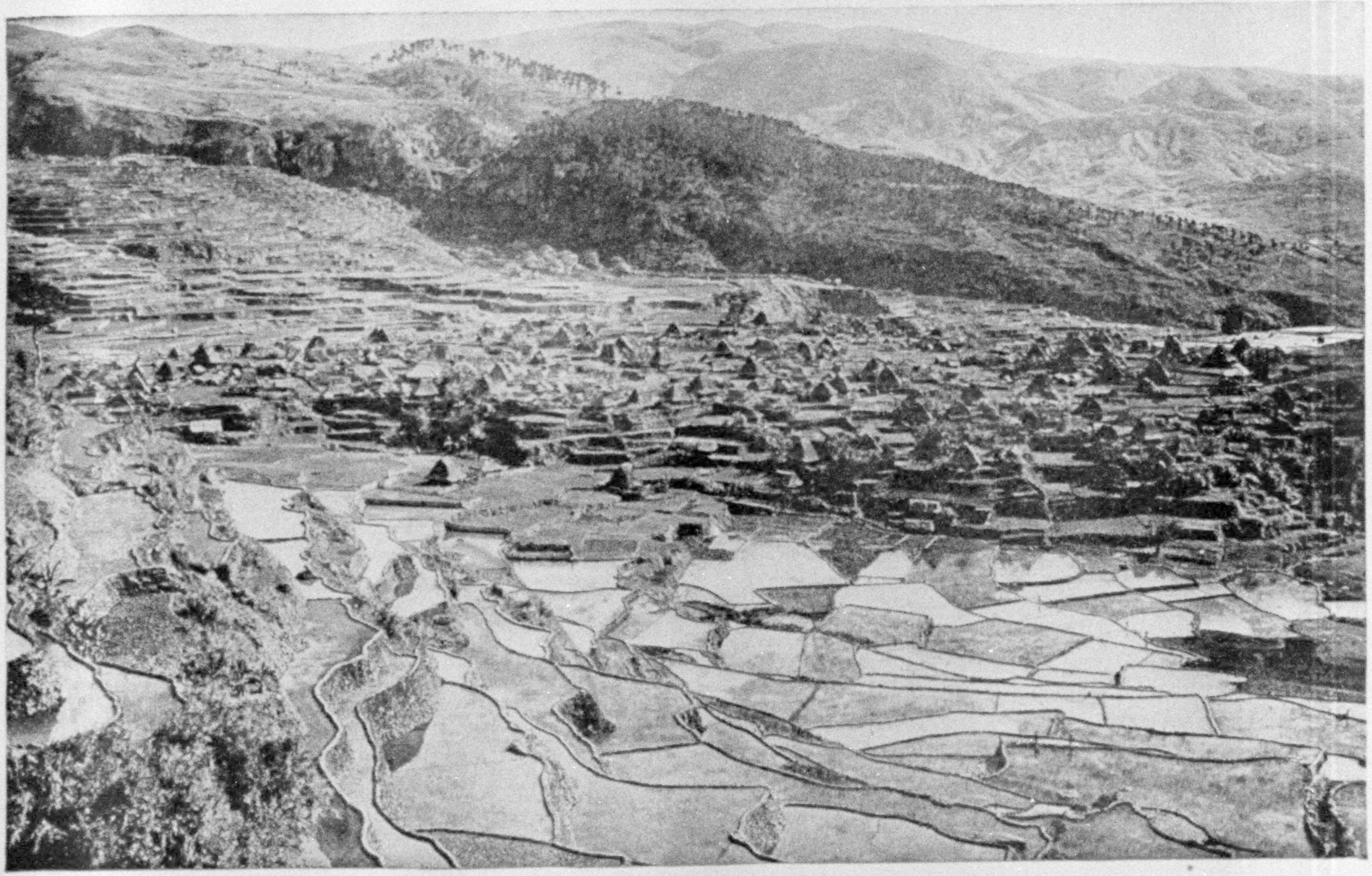
A SAVAGE BUREAU OF FORESTRY

Curiously enough, the Bontoc Igorots have forest laws and a forest service of their own. The mountain sides of their rough country are sparsely timbered with pine, which has grown very scarce near



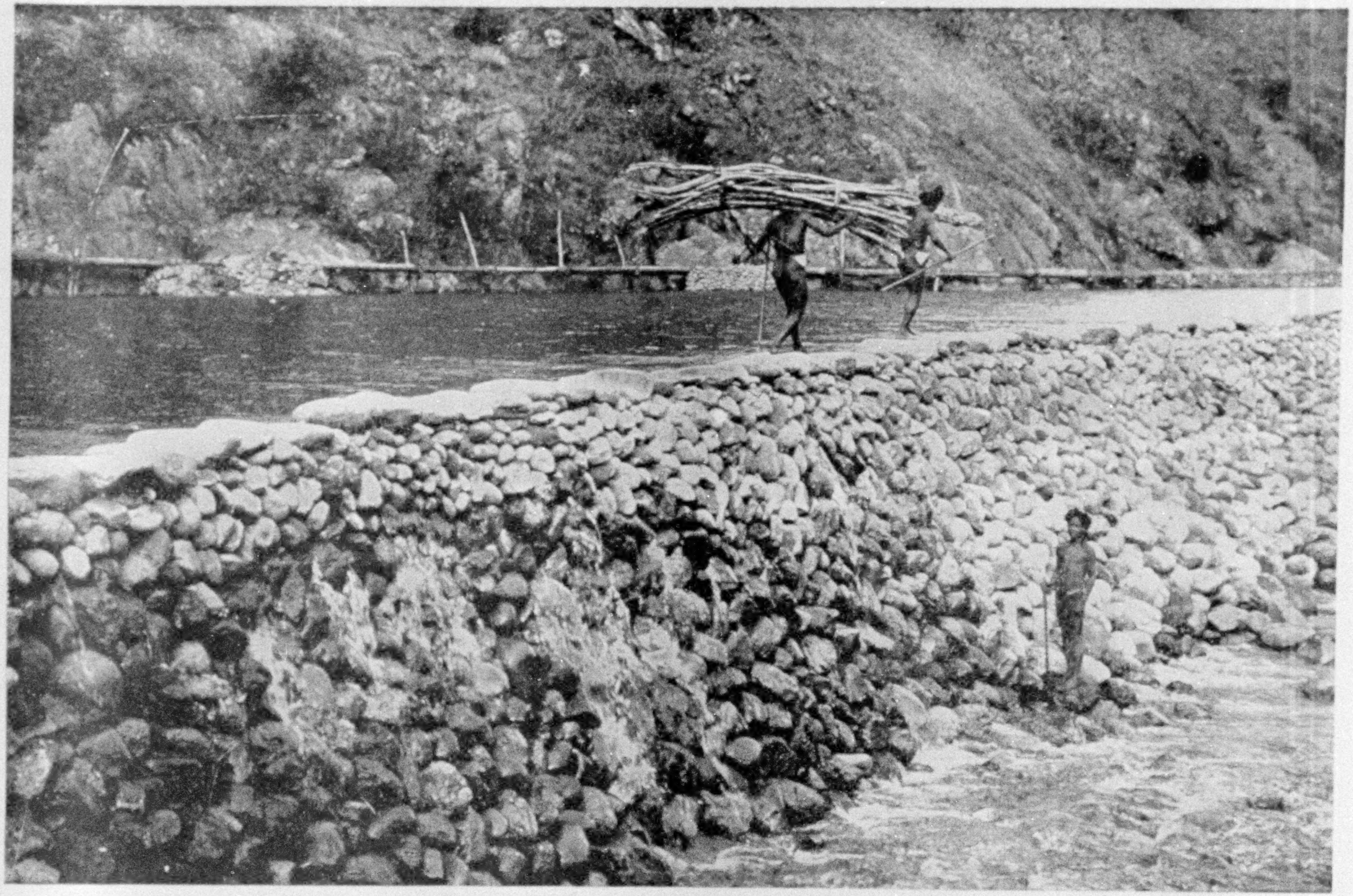
BANGAD, A BONTOC IGOROT TOWN

On the steep mountain sides above are rice terraces or fields of camotes, or yams, that yield large crops



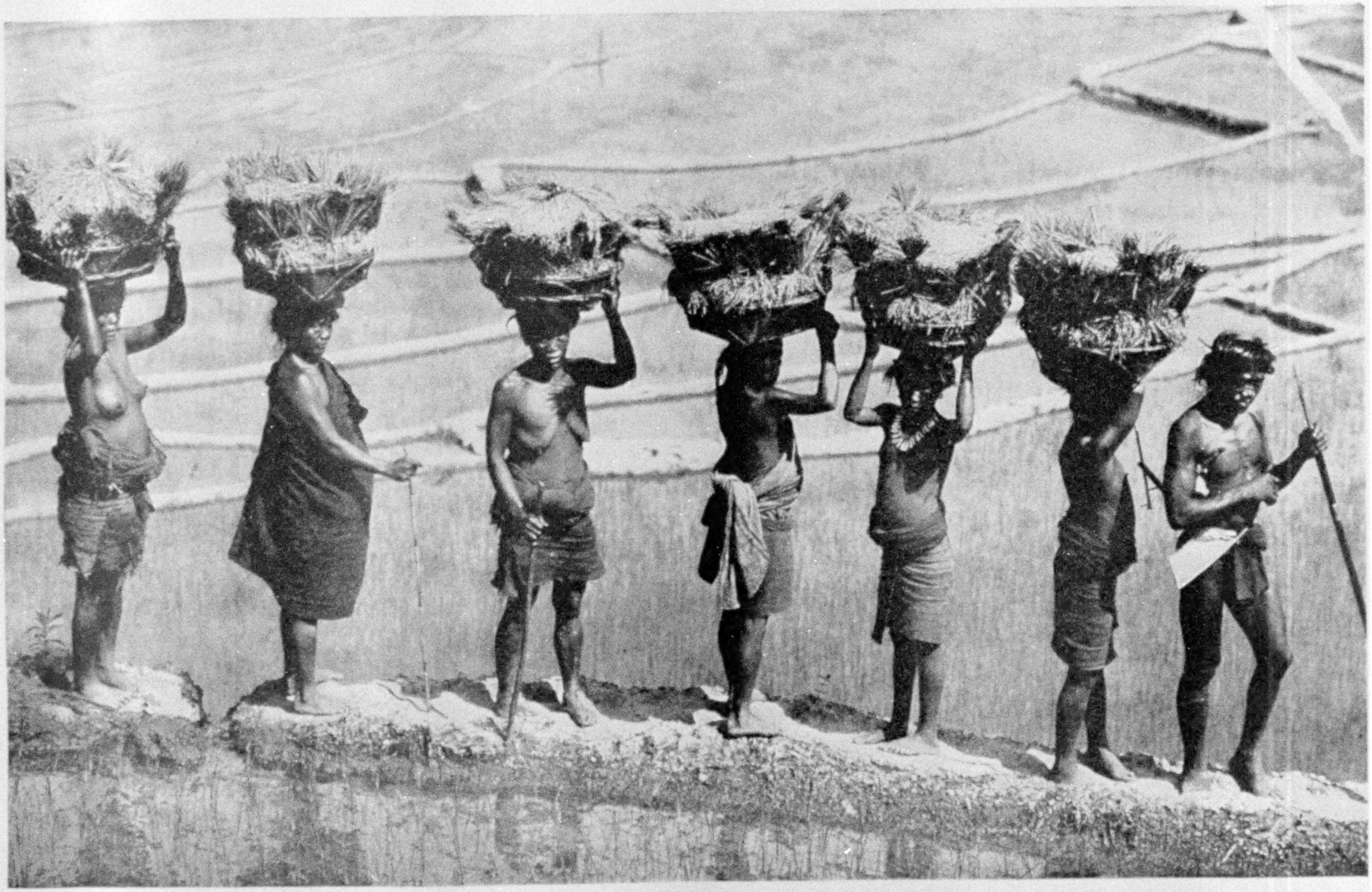
A BONTOC IGOROT TOWN, WITH A VIEW OF THE ADJACENT RICE TERRACES

Their houses are grouped in large villages and their occupants depend on their superior number of fighting men rather than inaccessibility (see page 897)



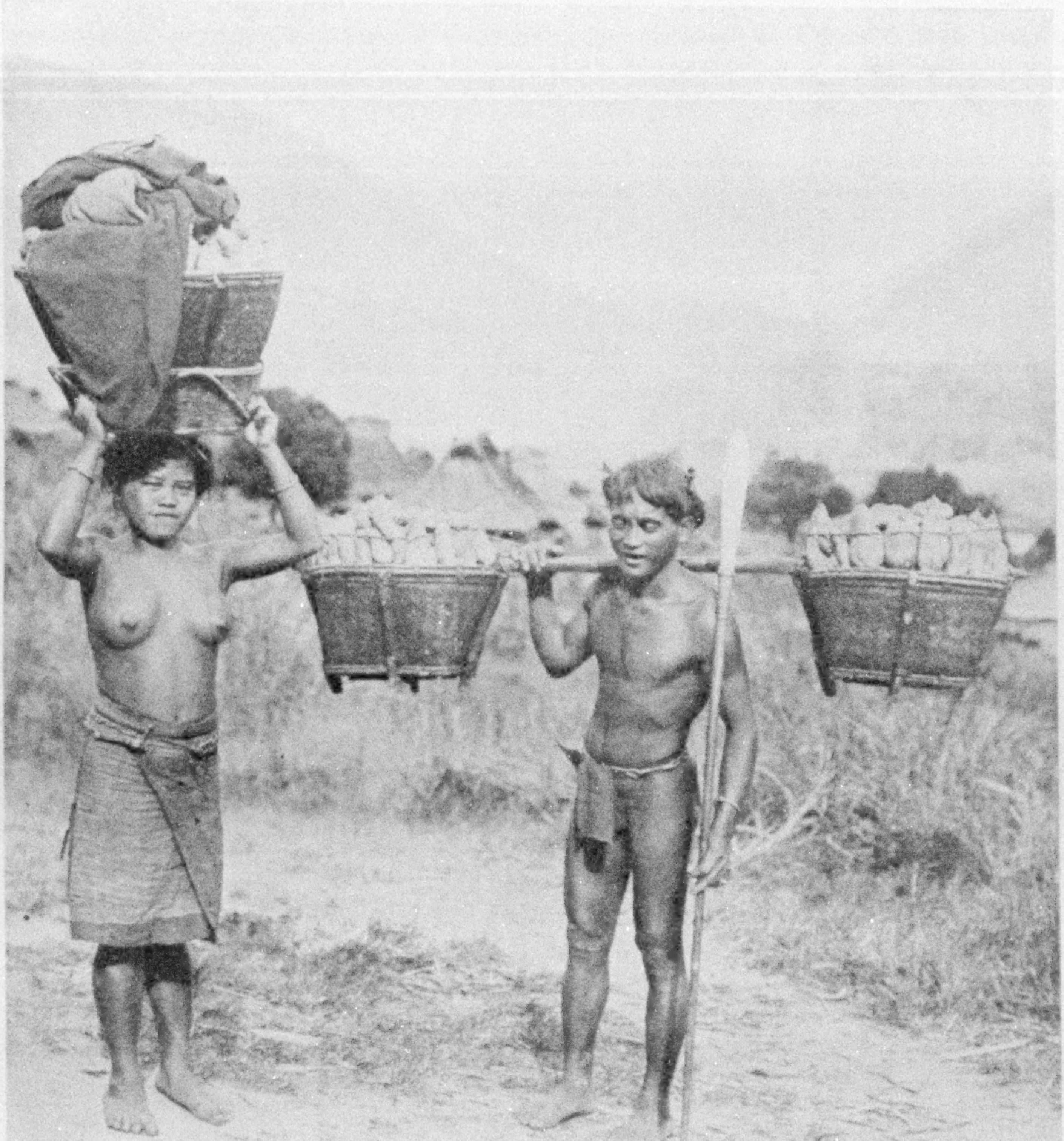
VIEW OF A SECTION OF A BONTOC IGOROT IRRIGATION DAM LAID UP WITH DRY STONES

They are capable agriculturists, building wonderful systems of irrigated rice terraces (see page 899)



BONTOC IGOROT WORKERS BRINGING IN RICE-HEADS

They harvest their rice, as do the hill people of other tribes, by cutting the heads one at a time, and the crop is often very large

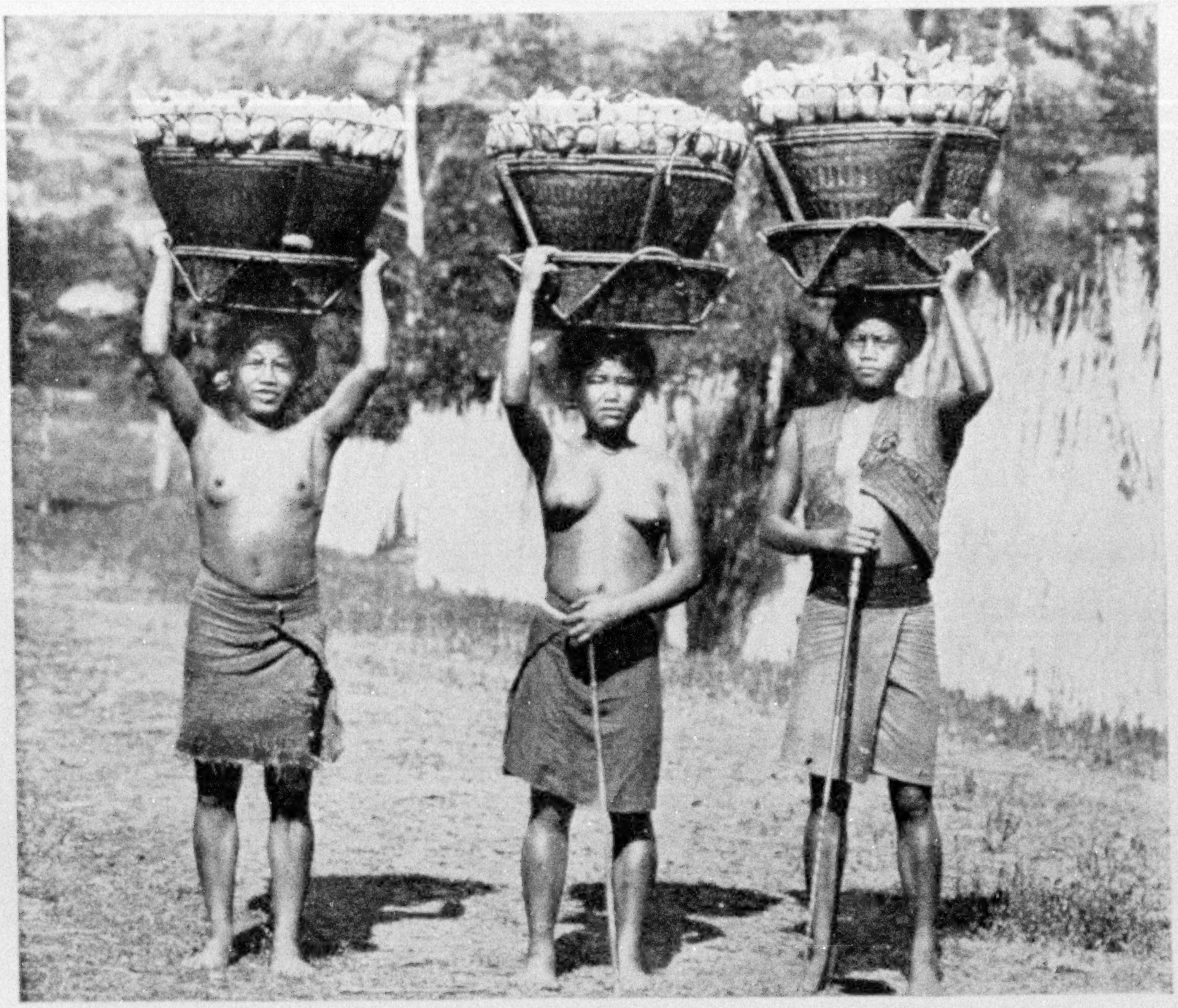


BONTOC IGOROTS BRINGING IN CAMOTES

When laboring in mud and water, in planting time, both sexes frequently go about entirely nude, a condition not observed among any other tribe in the Philippines

some of the larger settlements. Forests in the vicinity of such settlements are divided up into small private holdings claimed by individuals, whose right thereto is recognized by the other members of the tribe. In many places it is forbidden to cut trees until they have reached a large size, although the lower branches are constantly trimmed off and used for firewood. Forest fires are kept down to facilitate reforestation, and on occasion young trees are planted. Such foresight on the part of a primitive people is certainly unusual.

XUM



BONTOC IGOROT WOMEN

They are bringing in camotes, or yams, which have been laboriously dug up with sharpened sticks

The Bontoc Igorots are only just now learning the use of agricultural tools. Heretofore they have performed most of their agricultural operations with their own hands and feet and with sharply pointed sticks. They harvest their rice, as do the hill people of the other tribes, by cutting the heads one at a time.

When laboring in the mud and water in the rice fields at planting time, or when obliged to be out in the rain, both men and women often go stark naked, a condition of things which I have not observed among the people of any other tribe in the Philippines. The women commonly wear skirts of leaves while performing field work, thus saving wear on their highly prized cloth skirts.

Their towns are divided into what we should perhaps call wards, and in each division there is usually a group of buildings, consisting of a long, low dormitory for girls and unmarried women or widows; a second for young boys, unmarried men, and widowers, and a sort of men's clubhouse. The people who sleep at home are ordinarily the fathers, mothers, and very young children. All others go to the above-mentioned public dormitories. In addition there is an open stone court from which a long two-room building extends. The room nearest the court opens directly upon it, the outer end being without a wall. It serves as a sort of men's clubhouse. Here all important public events are discussed. The second room is dark. Access to it is had through a very narrow door at the side and only the elect may enter. It is used as a depository for the skulls of enemies

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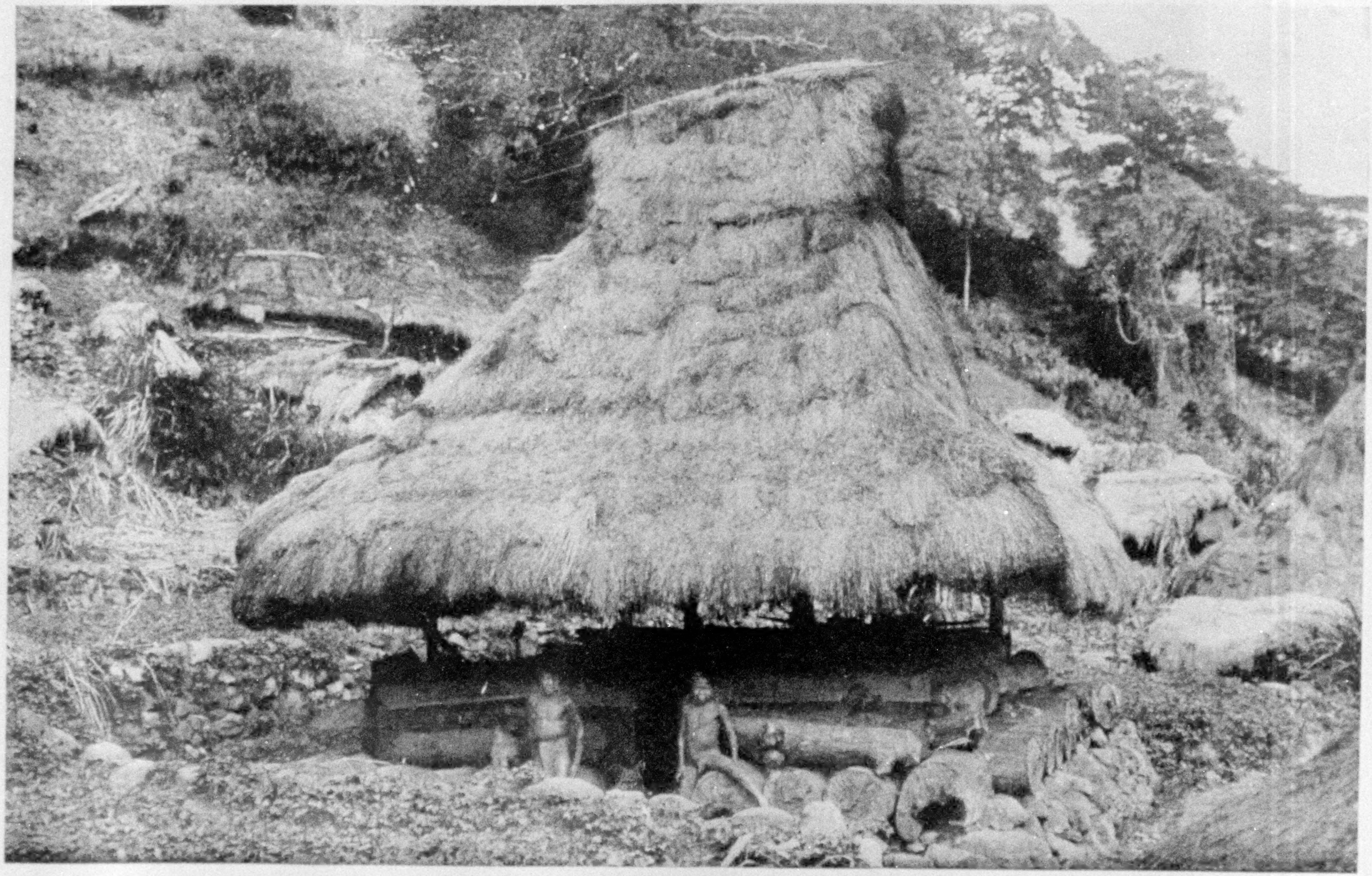
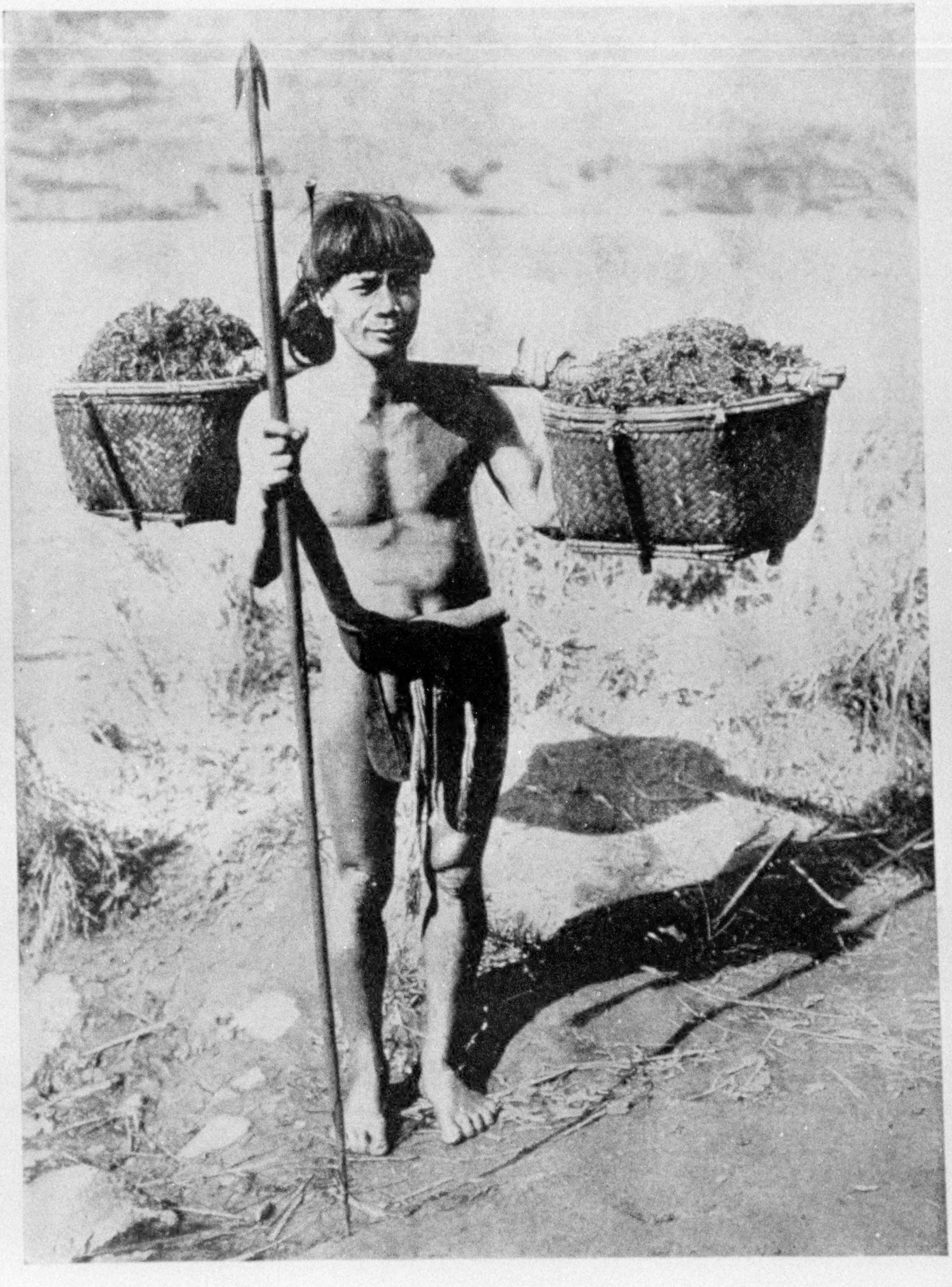


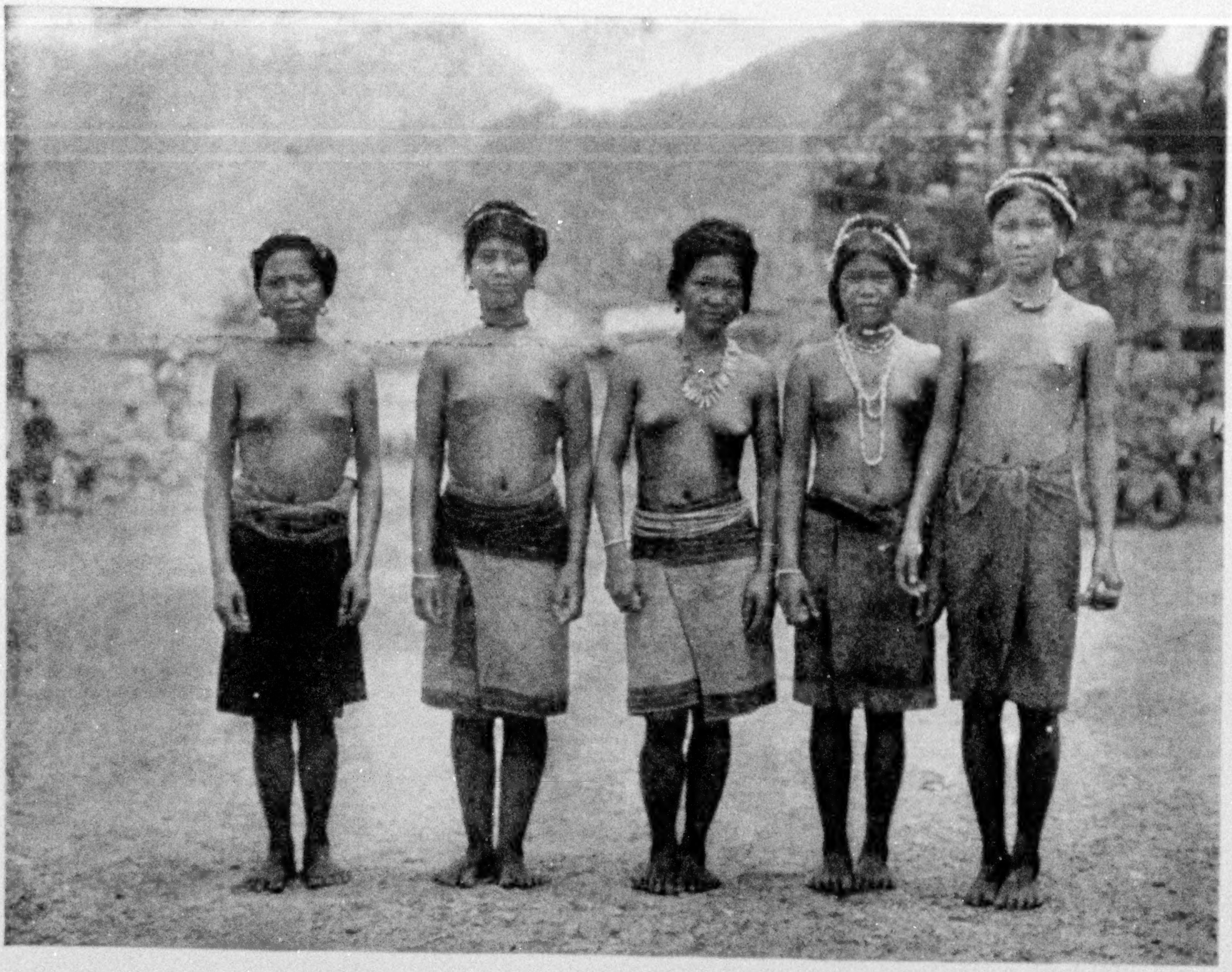
A TYPICAL BONTOC IGOROT HOUSE

A number of distinct types of houses are to be found among these people, due to the fact that their territory abuts that of several other tribes, so they frequently adopt the style of their nearest neighbor. Note the firewood under the eaves (see page 896)



A BONTOC IGOROT HEAD-HUNTER CARRYING FERTILIZER OUT TO HIS RICE FIELD

They are untiring workers and seem to have a well-established idea of land cultivating (see page 899)



A GROUP OF BONTOC IGOROT WOMEN IN TYPICAL DRESS

Their one garment is a narrow skirt reaching from waist to knee and open up one side. Upper garments are practically unknown except where they come much in contact with the Filipinos (see page 896)

killed by the people of the ward. In the open court above referred to there may be a tree growing, but if there is not a live tree its place is usually taken by one that has been cut off and stuck into the ground. In either event some of the branches which extend directly upward are cut off, leaving sharp prongs, on which may be impaled the heads brought in by successful war parties.

WELL-REGULATED WARFARE

The Bontoc Igorots are perhaps more courageous and manly in their fighting than are the people of any other Philippine hill tribe. They have regular ceremonies for making peace and declaring war. On occasion the people of one town send word to the people of another that they are going to attack on a given day. At other times enemies meet by appointment at designated places and fight over fancied wrongs.

Heads are removed with heavy head-axes, which lack the graceful form of the axes of the Kalingas, but are perhaps more formidable, as their cutting edges are considerably longer. The strong and well fashioned, wickedly barbed steel lances, which the Bontoc Igorots throw with much force and skill, are very formidable weapons at short range. Their shields are stout affairs of wood lashed with rattan. They are fashioned in various more or less artistic shapes, which show a distinct advantage over that of the shields of the Ifugaos, but they are inferior, in appearance at least, to those of the Kalingas.

When a successful war party returns with heads there is great rejoicing. The gory trophies are stuck up in the courts of the wards where dwell the men who took them, and there ensues a *cañao,* accompanied by much drinking and feast-

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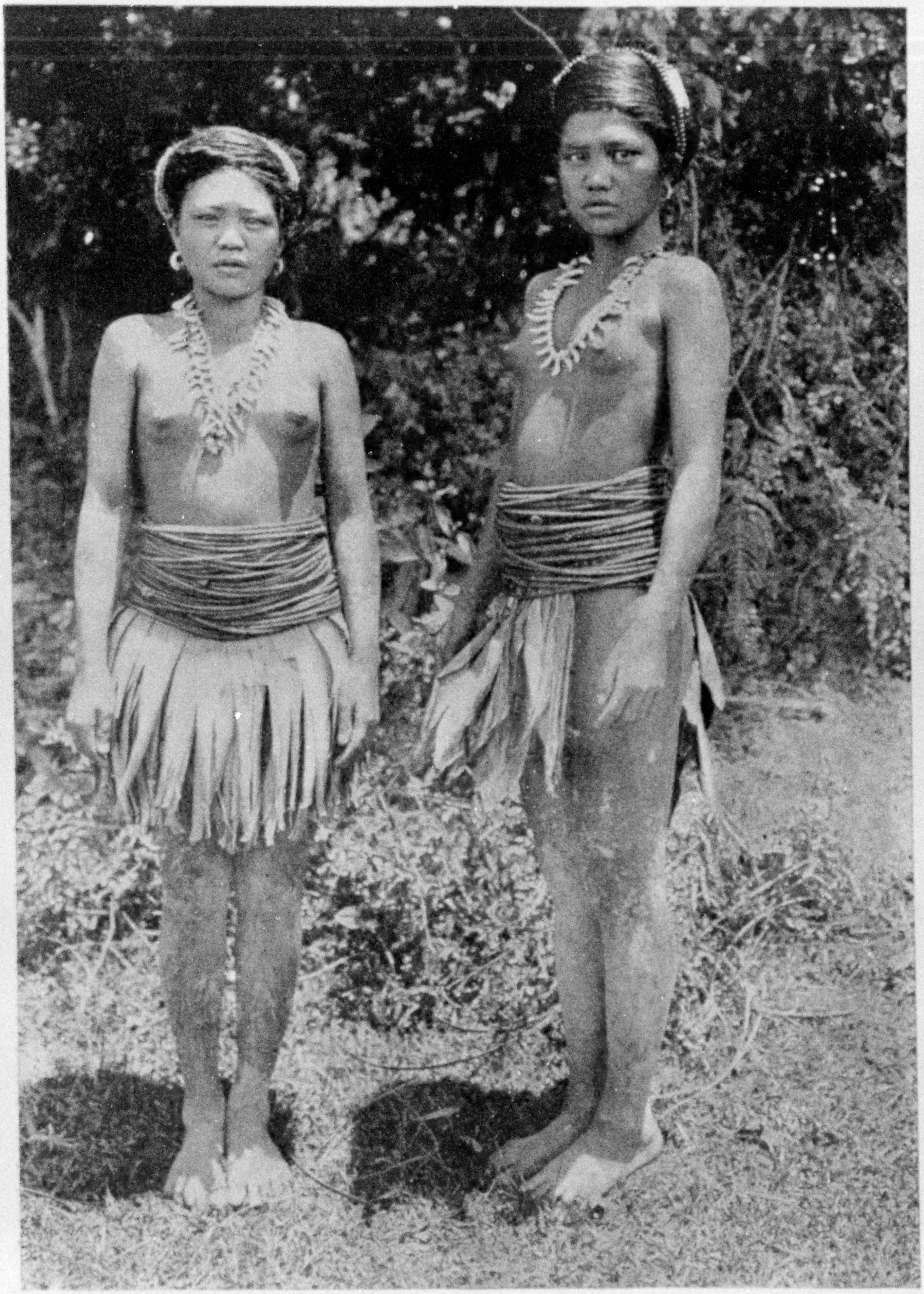
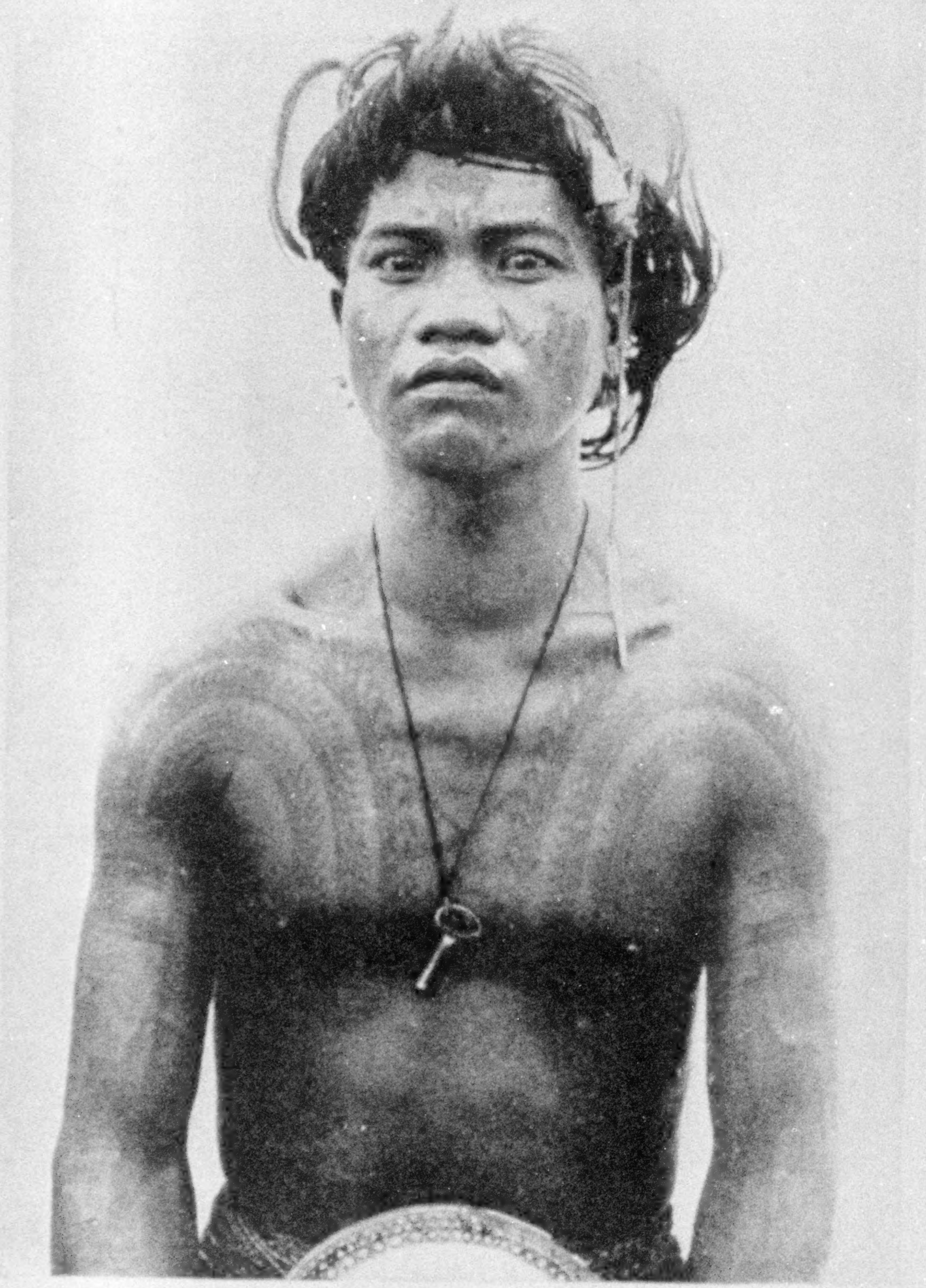


BONTOC IGOROT WOMEN IN WORKING DRESS

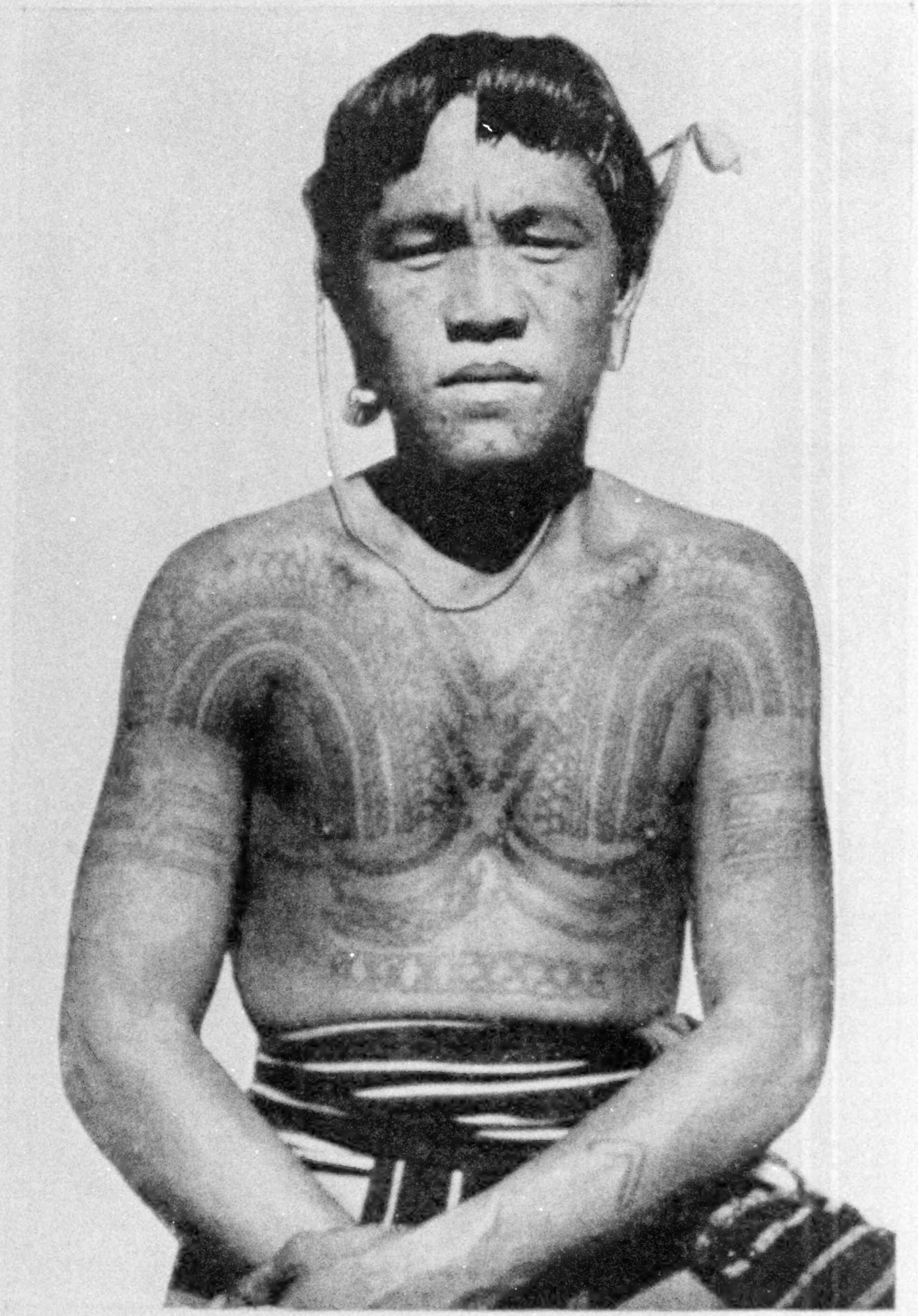
The women sometimes wear skirts of leaves when engaged in field work (see text, page 905)

IUM



A BONTOC IGOROT

His most cherished decoration is the key which is hung about his neck



BONTOC IGOROT TYPE

The tattooing is not unusually elaborate. They frequently decorate their faces and back in a like manner ing. The duration of the celebration depends on the wealth of those who give it. These people believe that the *anito*, or spirit, of a person who has lost his head can make trouble for those who killed him, but that such a spirit profits by the food and drink consumed by the living at the feast given in honor of the taking of the head; so there is a double reason for making head-taking feasts as elaborate and as long as possible.

CARE OF HEADS

After the feasting is over the heads are taken down and boiled and the skulls thoroughly cleaned. The lower jaws are used for *gansa* handles and the skulls are buried in the earth in the secret rooms above referred to. At the expiration of a year they are dug up with appropriate ceremonies, and are then hung in baskets from the ridge-poles of these chambers.

As with the Ifugaos, a man who loses his head is considered to have brought discredit on his town. He is sometimes buried under a trail, so that his neighbors may walk over him! Participants in successful head-hunting raids are allowed to tattoo their bodies and more especially their faces.

A man or boy who has taken a head finds it comparatively easy to get an acceptable wife, and the influence of women is one of the potent factors which has rendered difficult the complete suppression of head-hunting among these people.

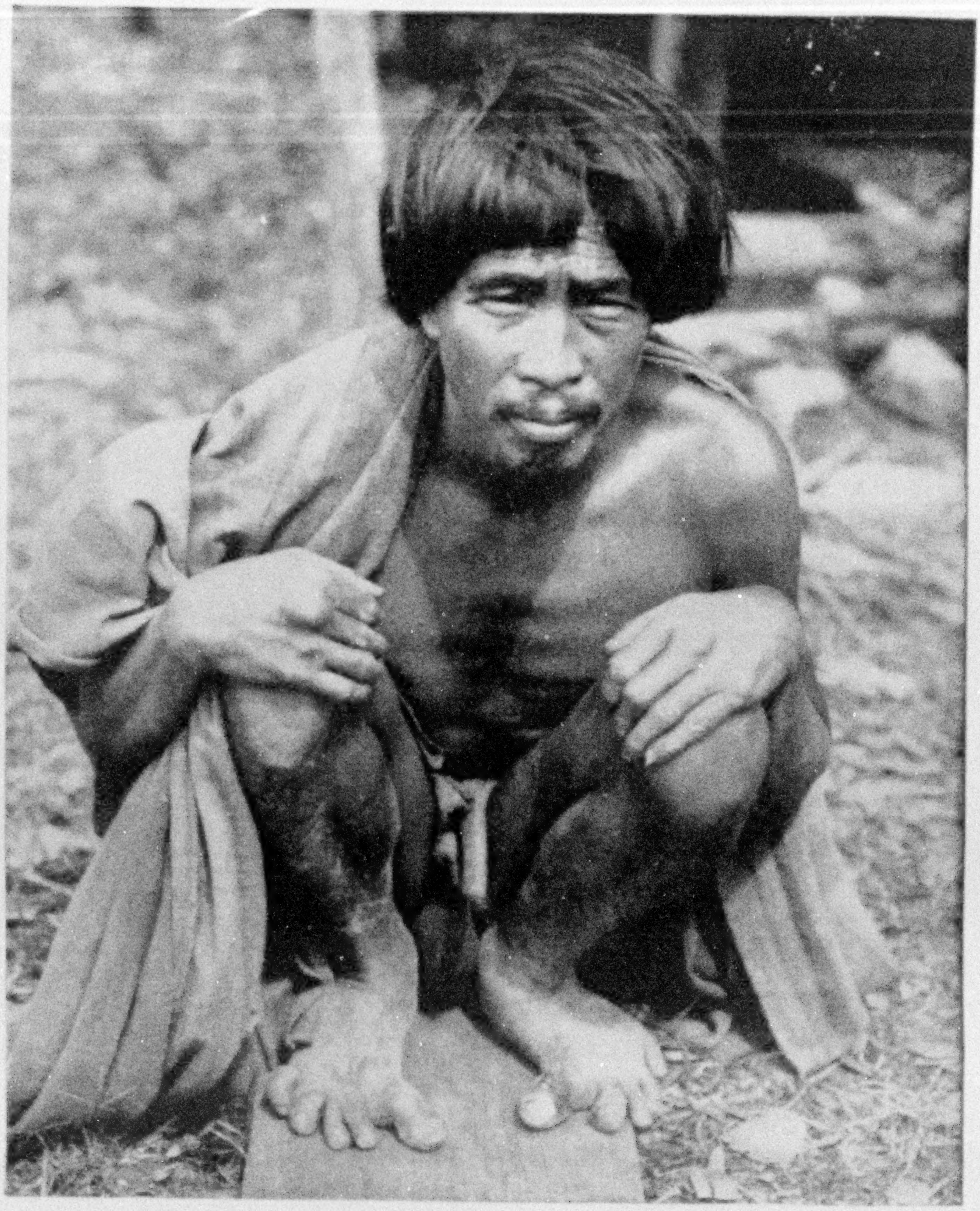
THE WILD TINGIANS OF APAYAO

Many of the Tingians of northern Luzon, although they are non-Christians and cling tenaciously to their ancient religious beliefs, are in other respects quite as highly civilized as their Christian Filipino neighbors.

Representatives of this tribe are found in North and South Ilocos, and even in Lepanto and Nueva Ecija, but the Tingian strongholds are the subprovinces of Abra and Apayao.

AGPAD, A BONTOC IGOROT WARRIOR

This man has saved two Americans from drowning. He was formerly a famous head-hunter



A TILLER OF THE SOIL

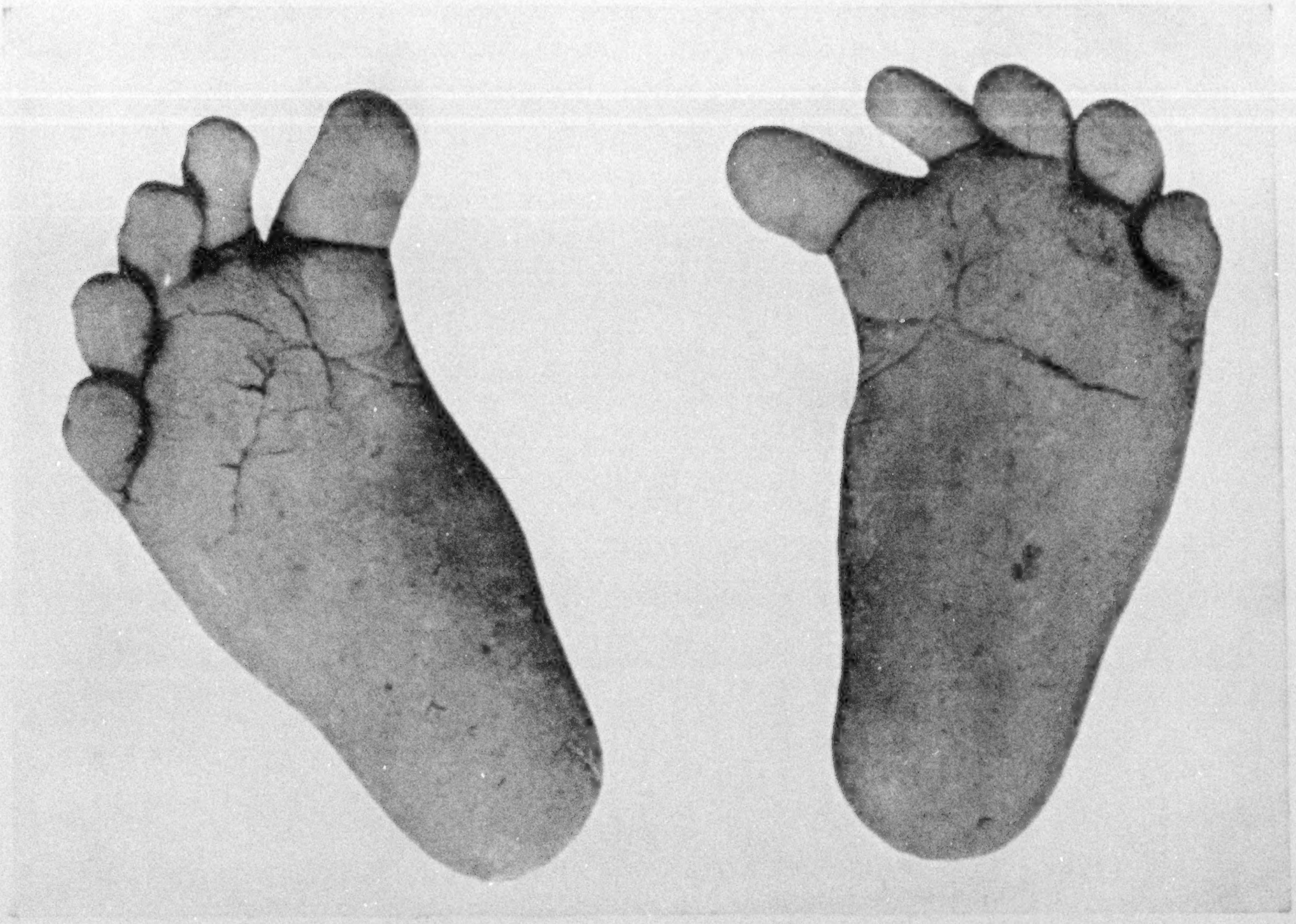
This Igorot has worked on the precipitous mountain sides until his prehensile toes have become almost deformed

Men and women are of medium size and have clean, well-developed bodies. The men let their hair grow long, binding it up on their heads with strips of cloth or handkerchiefs. Many of them are possessed of shirts and trousers, which they wear on state occasions, usually going back to their clouts, however, if there is any hard work to be done.

PECULIAR IDEAS OF PERSONAL BEAUTY

The women of this tribe ornament their arms with series of bracelets and armlets, which often extend from wrist to shoulder. They constrict the middle of the forearm during early girlhood and continue to wear tight armlets on the constricted portion throughout life, so that their forearms become somewhat hourglass-shaped, this being considered a mark of great beauty in spite of the unsightly swelling of the wrists which results.

In the more remote villages upper garments are not ordinarily worn by women and girls, but this rule does not hold for



FEET OF A BONTOC IGOROT

Showing the effect of constantly working up and down very steep hillsides. The natives are just learning the use of agricultural implements, heretofore performing much of the labor with their hands, feet, and pointed sticks (see page 905).

the towns near the Christian territory, where a modified form of the *camisa* of the Filipino women has been almost universally adopted. The garment is, however, sleeveless, or has very short sleeves, in order that the ornamented arms of the wearers may not be concealed.

The more civilized Tingians are a remarkably cleanly and an extraordinarily law-abiding and peaceful people. Their well-built houses are placed on high, sanitary sites. Their cooking utensils are taken to the river and scrubbed with sand after every meal. If a wife offers her husband dirty or soggy rice to eat, the offense is said to afford ground for divorce.

The people of this tribe are skillful agriculturists, raising yams, rice, corn, and tobacco in considerable quantity. They also grow a good deal of cotton, and the women are quite skillful in spinning it into thread and weaving it into cloth.

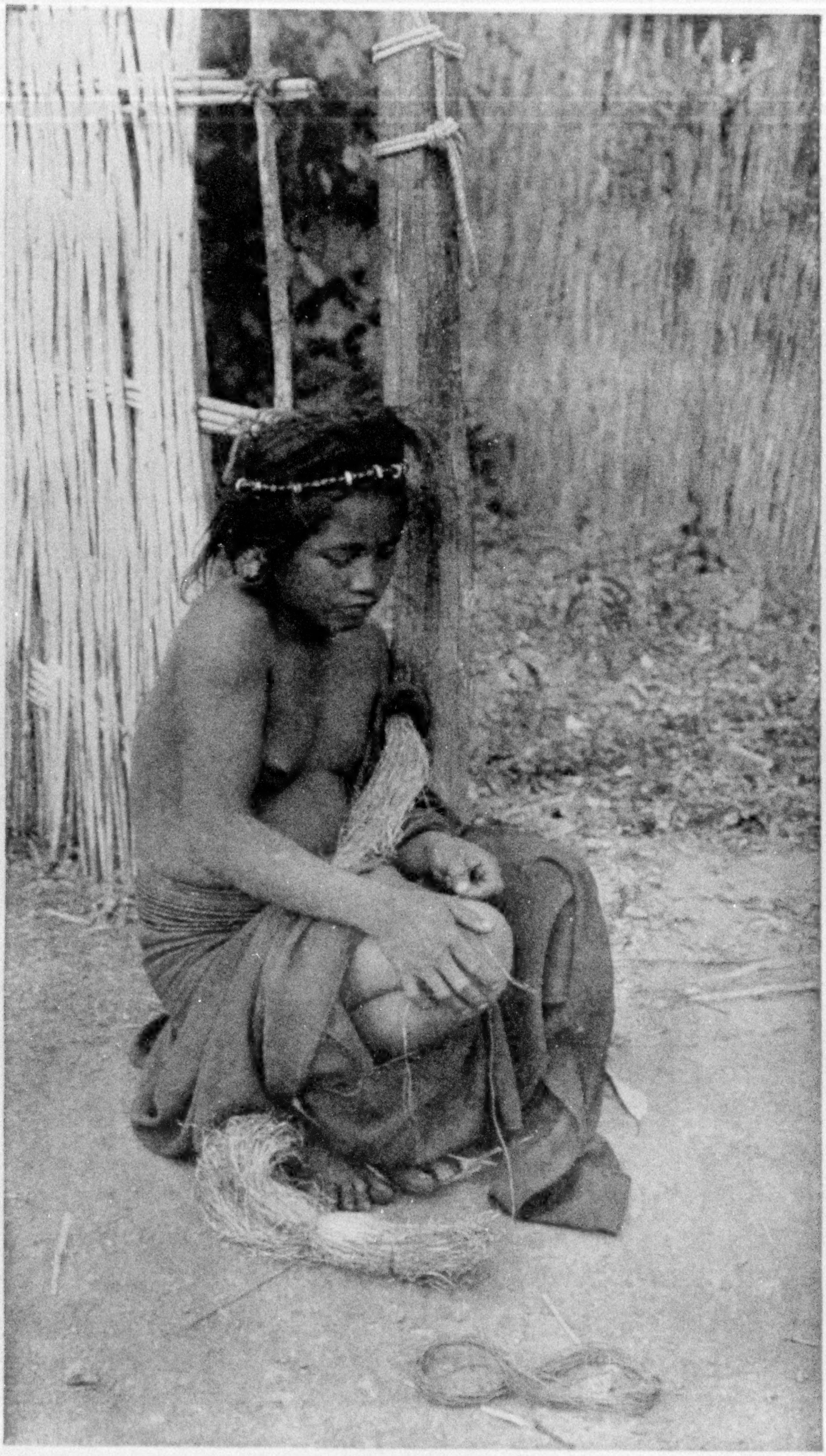
Horses and cattle are raised for sale, and in considerable numbers, and many Tingian families are quite well off.

In view of the brief account above given, the question may well be asked, Why are the people of this gentle, industrious, law-abiding tribe included among the head-hunters?

WHY THEY ARE WARLIKE

In the vicinity of Balbalassan, where until recently they have had to fight for their lives against the Kalingas and the Bontoc Igorots, they have either retained some of their own ancient and well-nigh forgotten warlike customs or have acquired those of their neighbors. At all events, they show courage and skill in the use of lances, head-axes, and shields, and are said on occasion to decapitate the enemies whom they slay. This, however, is not the real reason for listing them as head-hunters.

In the territory now included in the



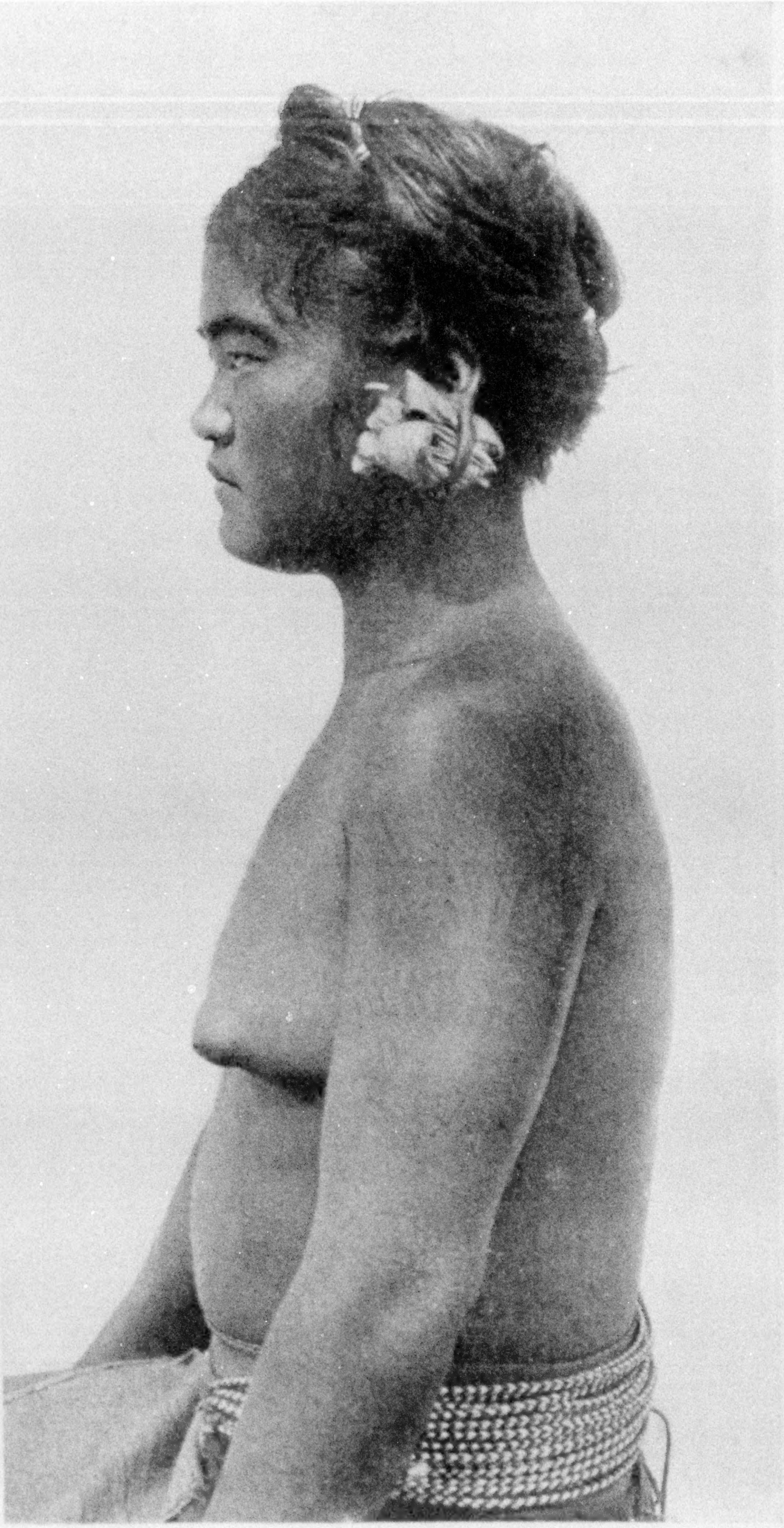
A YOUNG BONTOC IGOROT GIRL

Making cord from bark fiber. The cord will ultimately be woven into cloth. Note the decoration in the lobe of her ear (see text, page 896)

XUM

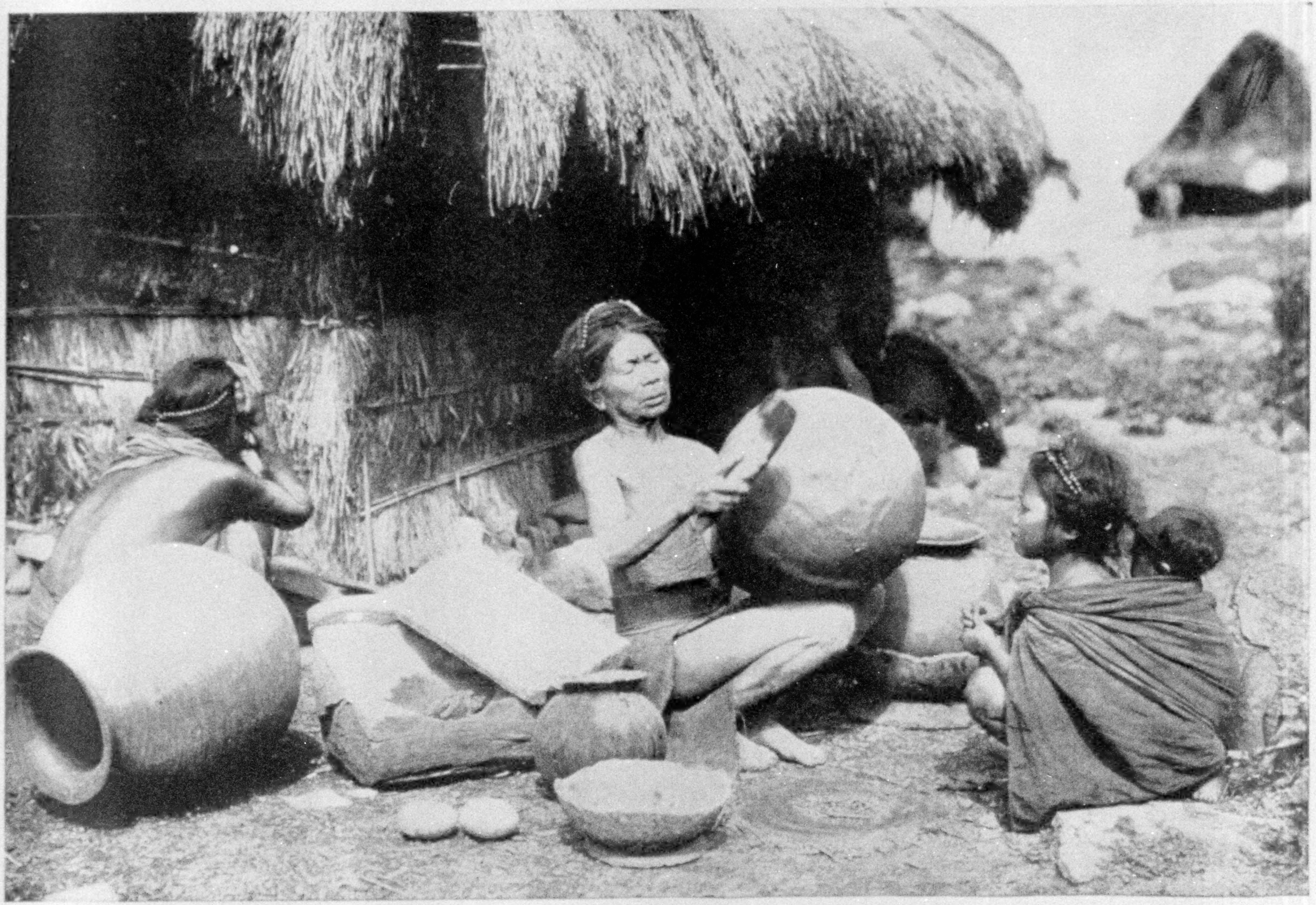
subprovince of Apayao, into which the Spaniards were never able to penetrate, there dwells a population of some 53,000 souls who have in the past been variously referred to as "Apayaos," "Igorotes," and "Kalingas." They are not Kalingas, nor do they seem to be worthy of any distinct tribal designation. It is believed that they have a common origin with the more civilized Tingians, and that they are today in substantially the same stage of civilization as were the Tingians of Abra 200 years ago. They are now just being brought under governmental control and comparatively little is known of their head-hunting customs.

They are people of medium stature. Many of them are slenderly and gracefully shaped. The men usually wear very large clouts, which are dyed a light indigo blue. They also wear short jackets of gay cloth similar to those worn by the Kalingas. Around their heads they wind turbans with alternating bands of bright scarlet and yellow. The men "bang" their hair low over their eyes, but otherwise do not cut it. Indeed, they supplement the natural growth by adding switches, after the manner of the women of other tribes. Their most characteristic ornaments are elaborate groups of pendants made from mother-of-



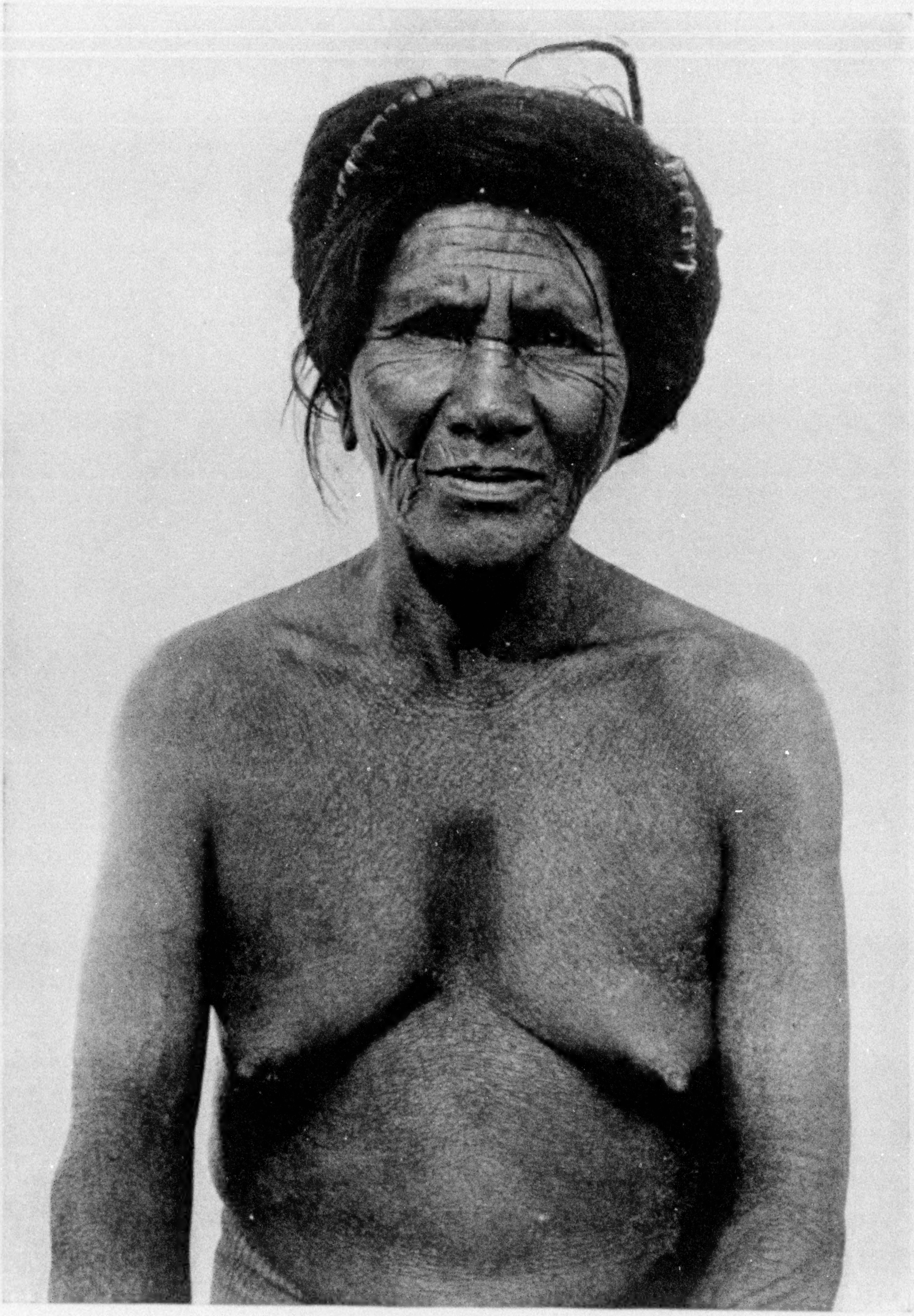
A YOUNG BONTOC IGOROT WOMAN

Note the enormous hole in the lobe of the ear. To bring this about a small opening is first cut, into which tiny pieces of wood are forced, gradually increasing in size until the hole becomes an inch or more in diameter (see page 895).



A BONTOC IGOROT POTTER

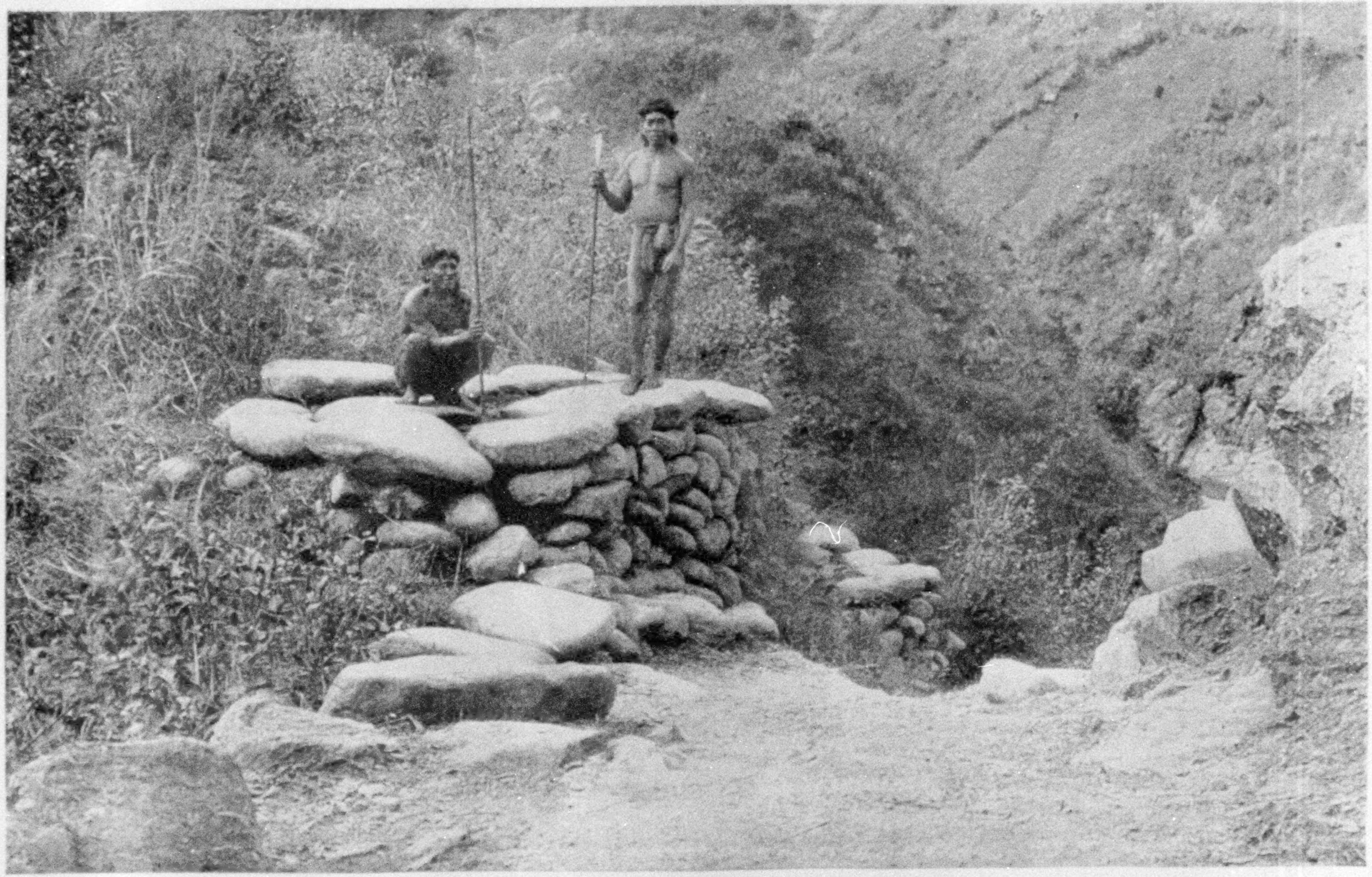
This tribe not only fashion well-shaped head-axes and lances, but make and burn serviceable earthen pots and artistic clay pipes (see page 896)



AN OLD BONTOC IGOROT WOMAN

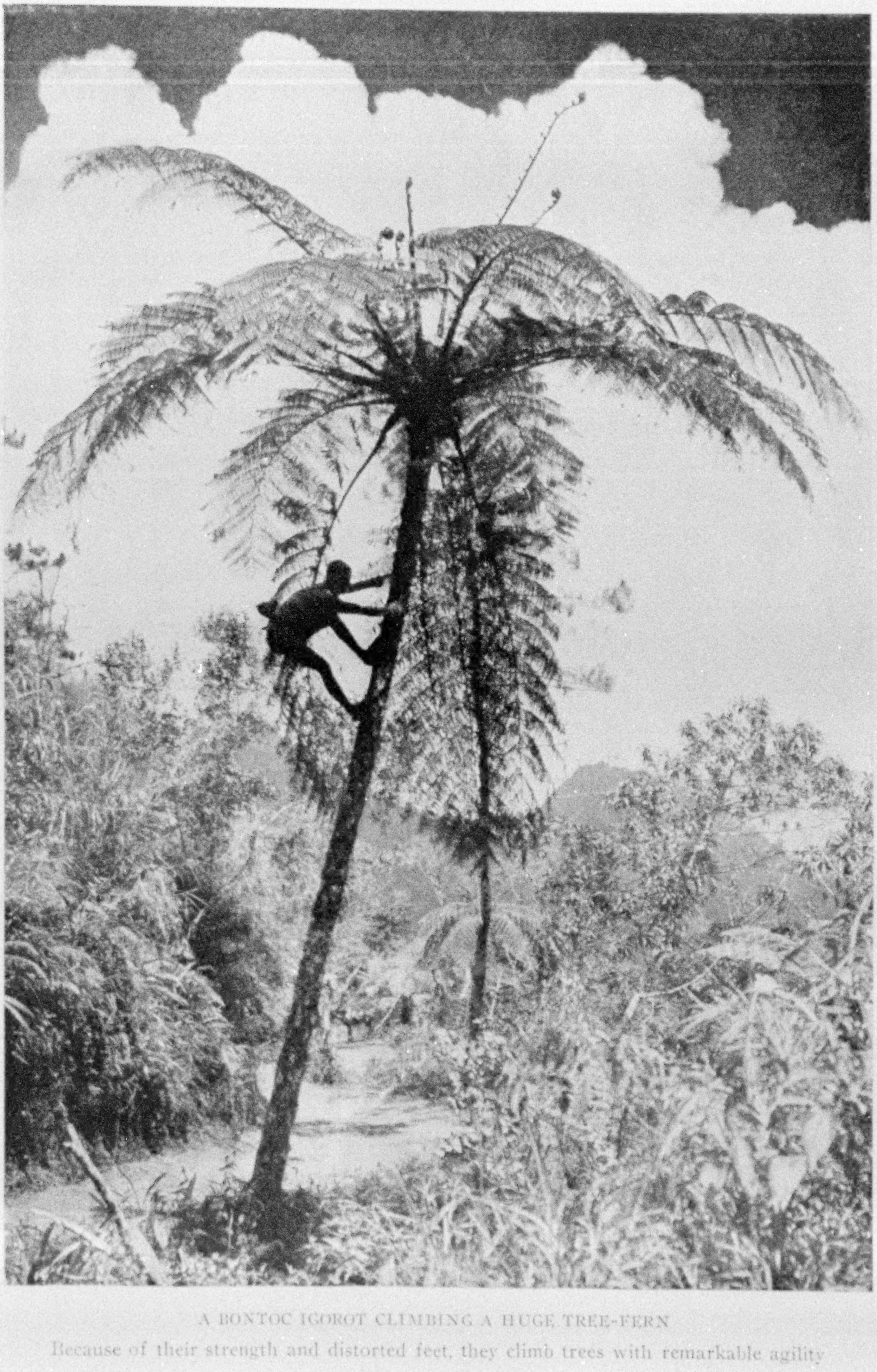
Owing to hard work in the fields, much of which is done by the women, they age very rapidly

XUM



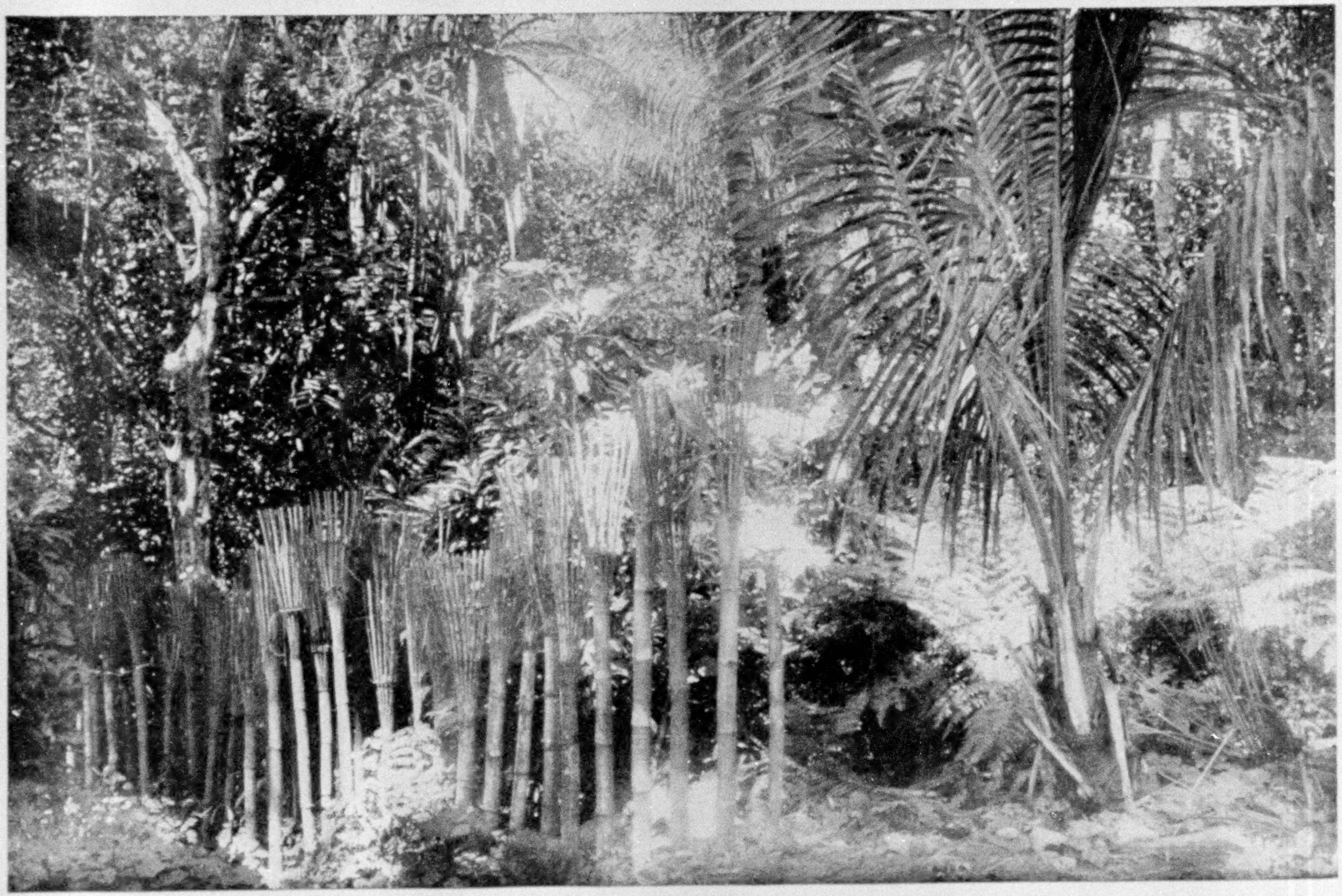
BONTOC IGOROT SENTRIES WATCHING A TRAIL

These people are perhaps more courageous and manly in their fighting than any other Philippine hill tribe, having regular ceremonies for making peace and declaring war (see page 908)



A BONTOC IGOROT CLIMBING A HUGE TREE-FERN

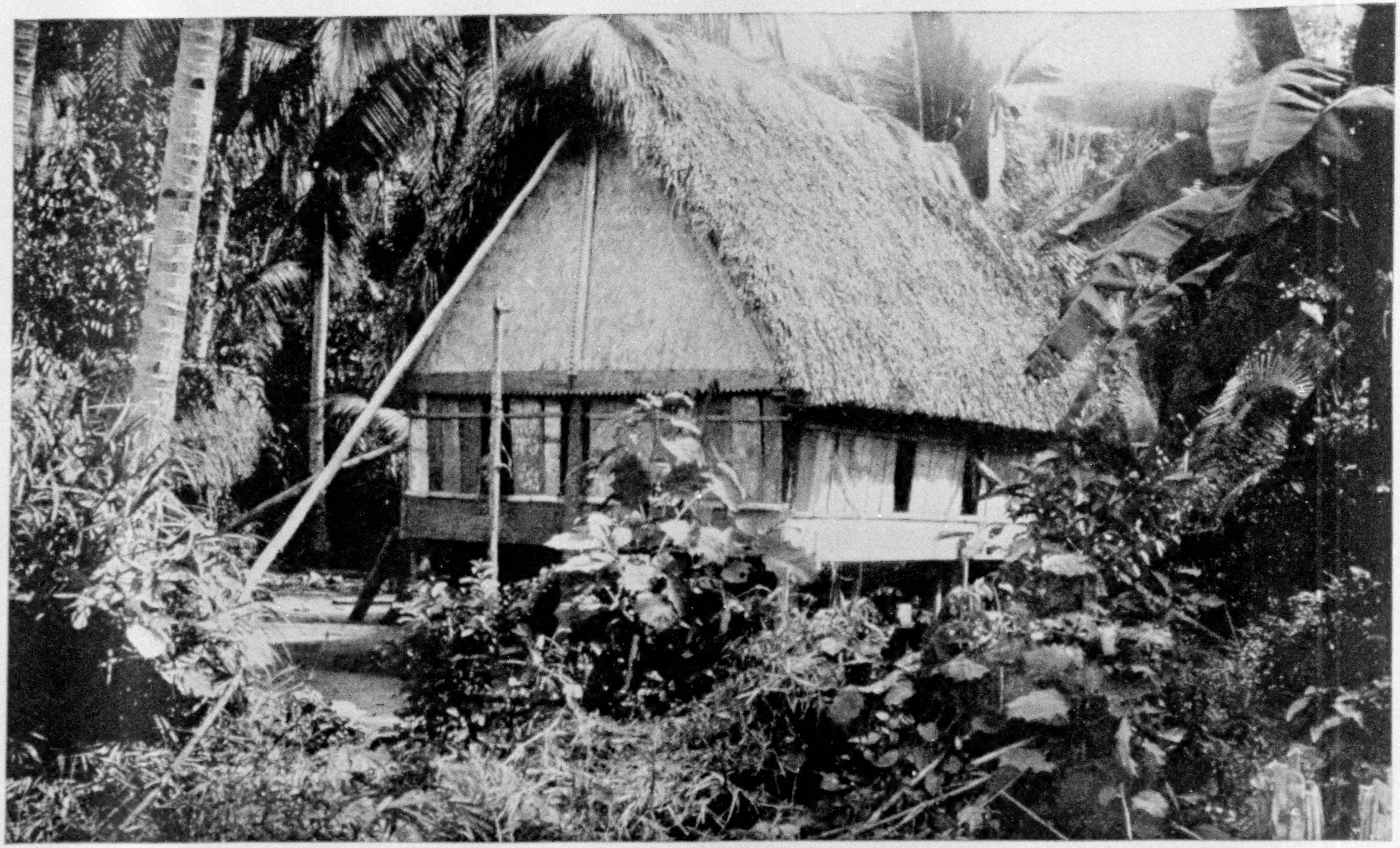
Because of their strength and distorted feet, they climb trees with remarkable agility



WILD TINGIAN HEAD-BASKETS

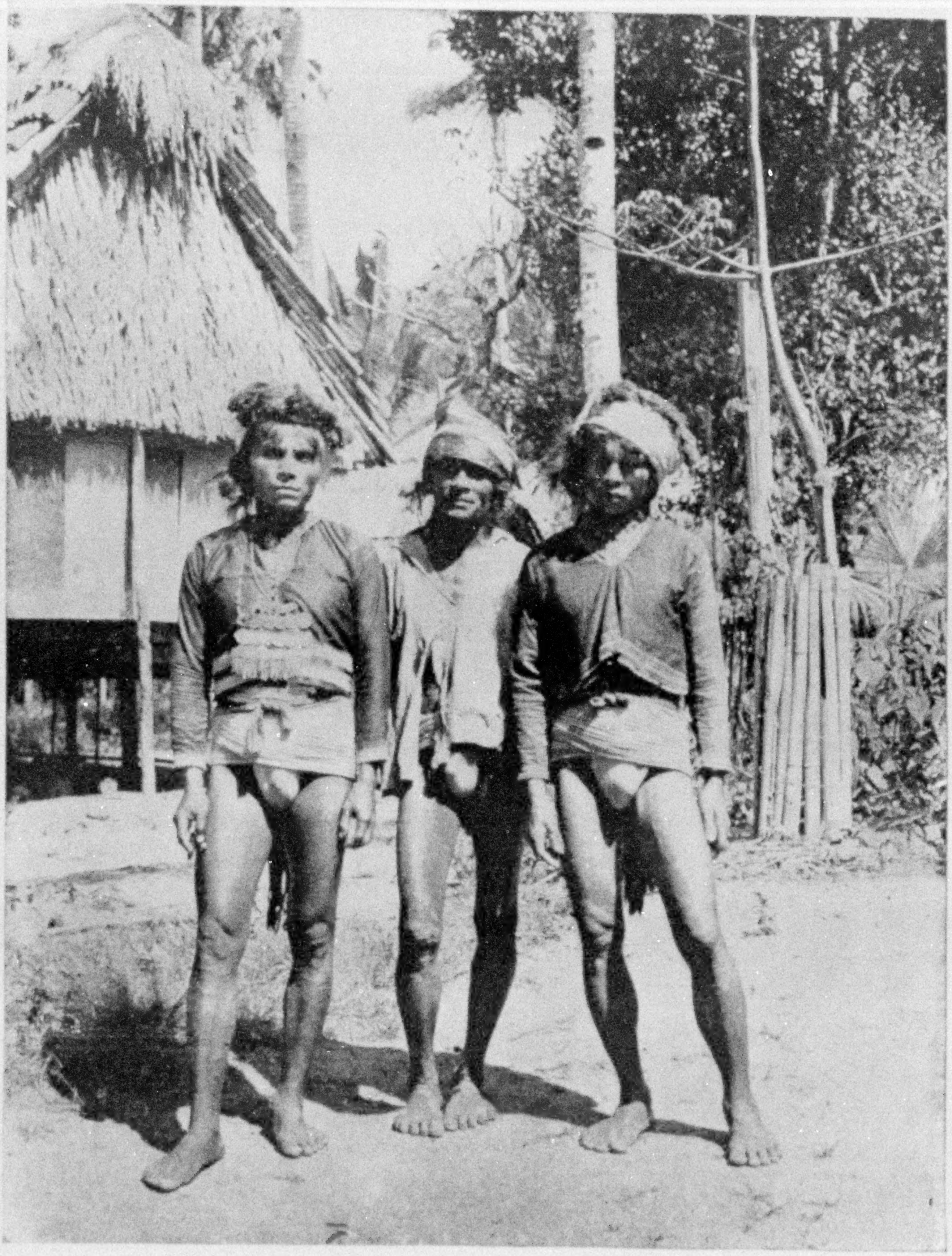
There were 58 of these bamboo baskets placed in two long rows on both sides of the trail giving entrance to the town of Magapta, Apayao. Each contained half a cocoanut shell, in which was a fragment of a human head (see page 930).

XUM



THE HOUSE OF A WILD TINGIAN, TAUIT, APAYAO

Their well-constructed houses are built upon high sanitary sites and are kept remarkably clean (see page 913)



THREE WILD TINGIAN CHIEFS

Photograph taken at Magapta, Apayao. Note the big breast ornaments of mother-of-pearl worn by the man at the left

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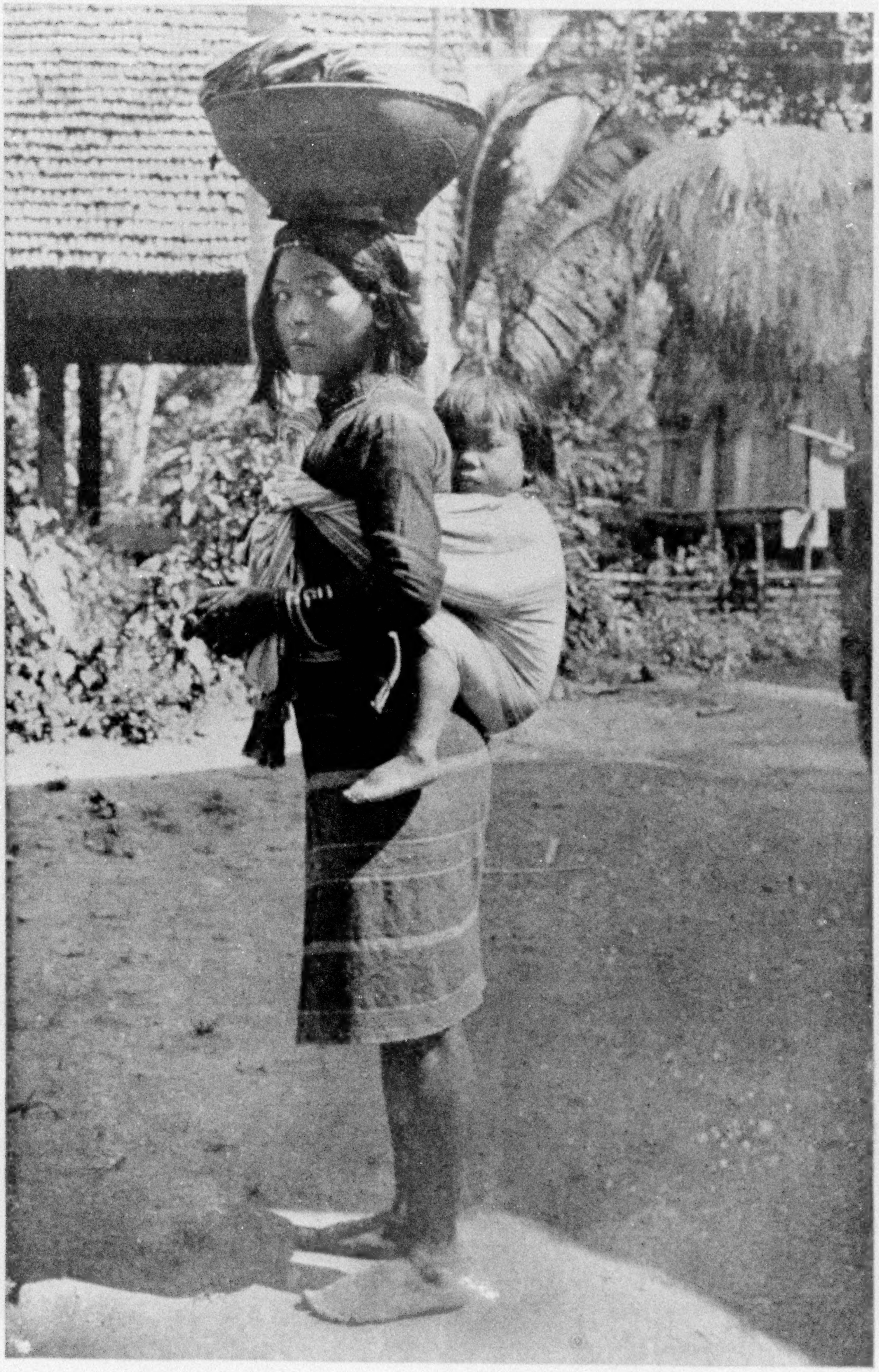
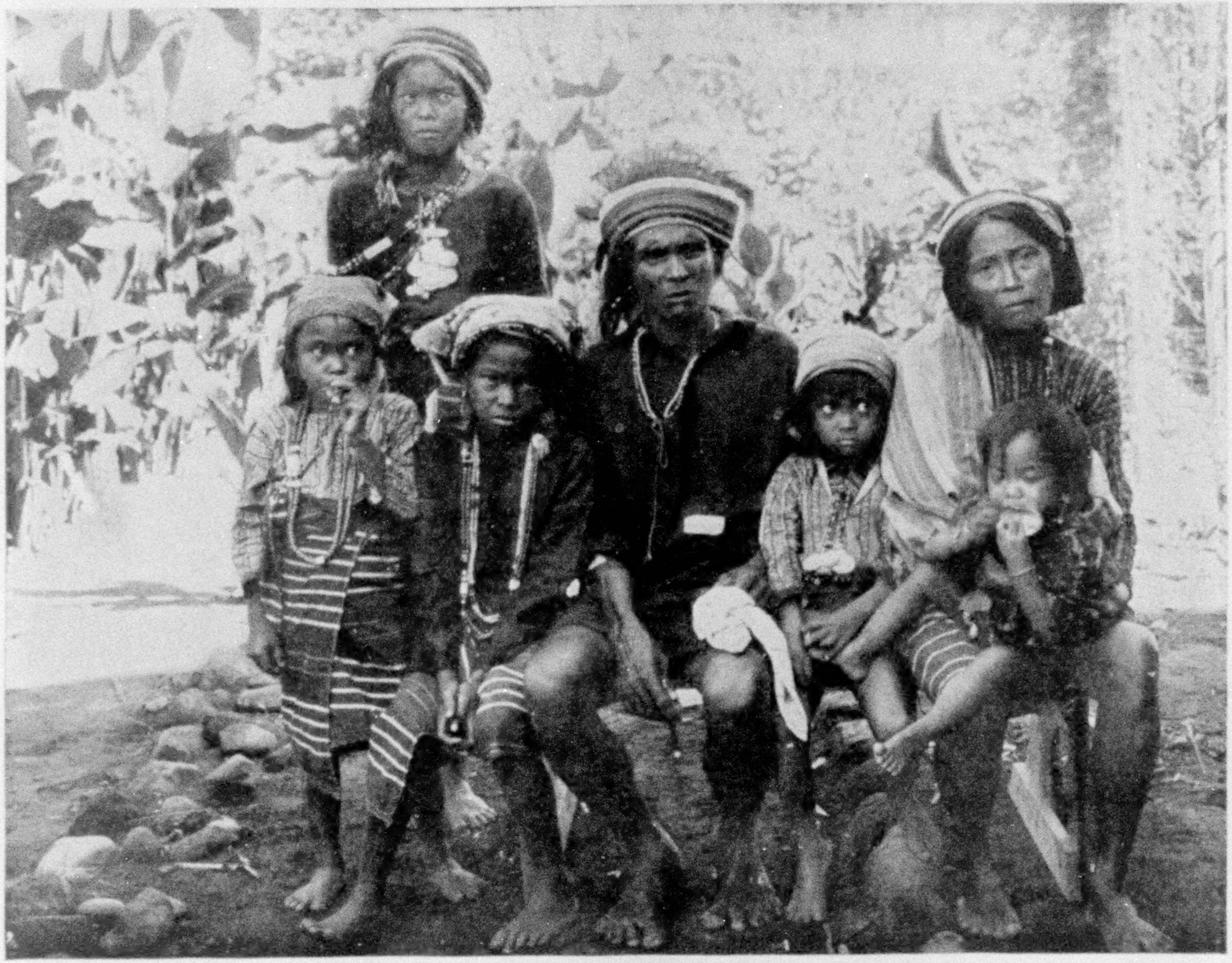


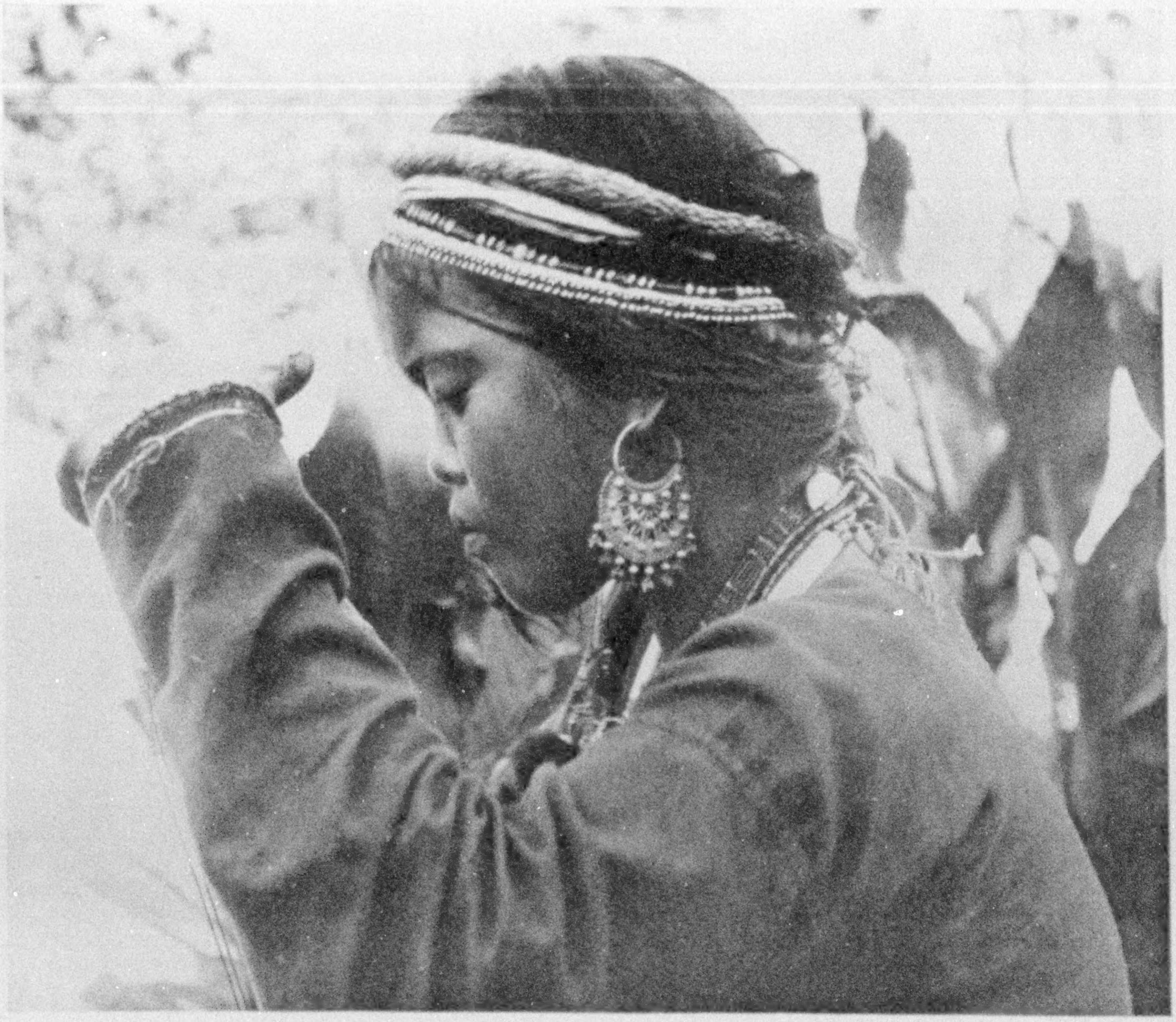
A WILD TINGIAN MOTHER AND CHILD

The women of this tribe are celebrated for their high moral tone. The affection between husband and wife is deep and lasting (see page 927)



A WILD TINGIAN FAMILY OF TAUIT, APAYAO

The man is Buñad, a famous fighting chief, the hero of a thousand battles, who has since died of a snake bite



A WILD TINGIAN GIRL.

These women differ from those of all other head-hunting tribes in never exposing the upper part of their bodies except when in mourning. They are inordinately fond of bead necklaces and of such large silver ear ornaments as are shown in the photograph.

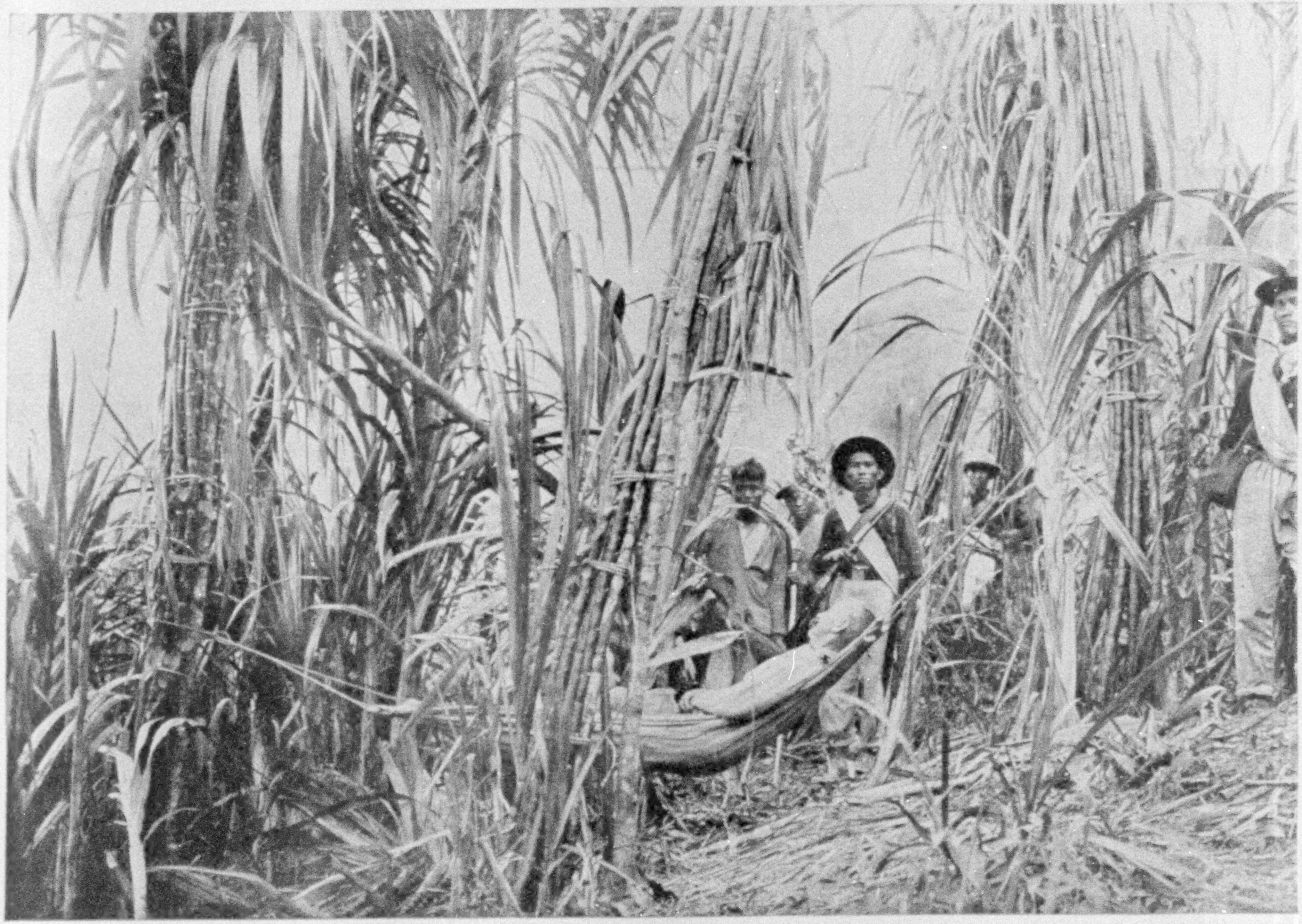
pearl and suspended from necklaces in such a way as to hang on their chests. Their shields are of a peculiar and highly characteristic form, and are almost invariably painted black, red, and yellow in accordance with a conventional color scheme, which is substantially the same in every instance. They use lances with long and very slender heads. Their head-axes in many cases more nearly resemble corn-knives than the axes of the Bontoc Igorot or the Kalingas. A few of the men know how to work iron and steel.

DIFFERENT IDEAS OF DRESS FOR WOMEN

The women wear short skirts, and upper garments. They differ from the women of all other Philippine head-hunting tribes in being scrupulously careful about exposing the upper part of the body, except when they are in mourning.

Many of their ornaments are like those of the men, and they are inordinately fond of bead necklaces and of large silver ear ornaments of peculiar form. A blue thread tied tightly around the ankle is a sign that the wearer is unmarried.

These wild Tingians live in small villages in immediate proximity to rivers and streams. It has proved excessively difficult to suppress head-hunting among them, for the reason that it is intimately connected with their religious beliefs.



GIANT SUGAR-CANE RAISED BY THE WILD TINGIANS OF DALLAOAS

The stalks of two plants proved quite strong enough to support a hammock containing a heavy man

When a man dies, whether his death be natural or due to violence, the other members of his family repair by night to some village of their enemies, cut pieces from their turbans, and throw them down on the ground. This is interpreted as an intimation that they will return and take heads some time within six months, and they believe that the dead man knows no peace until this is done.

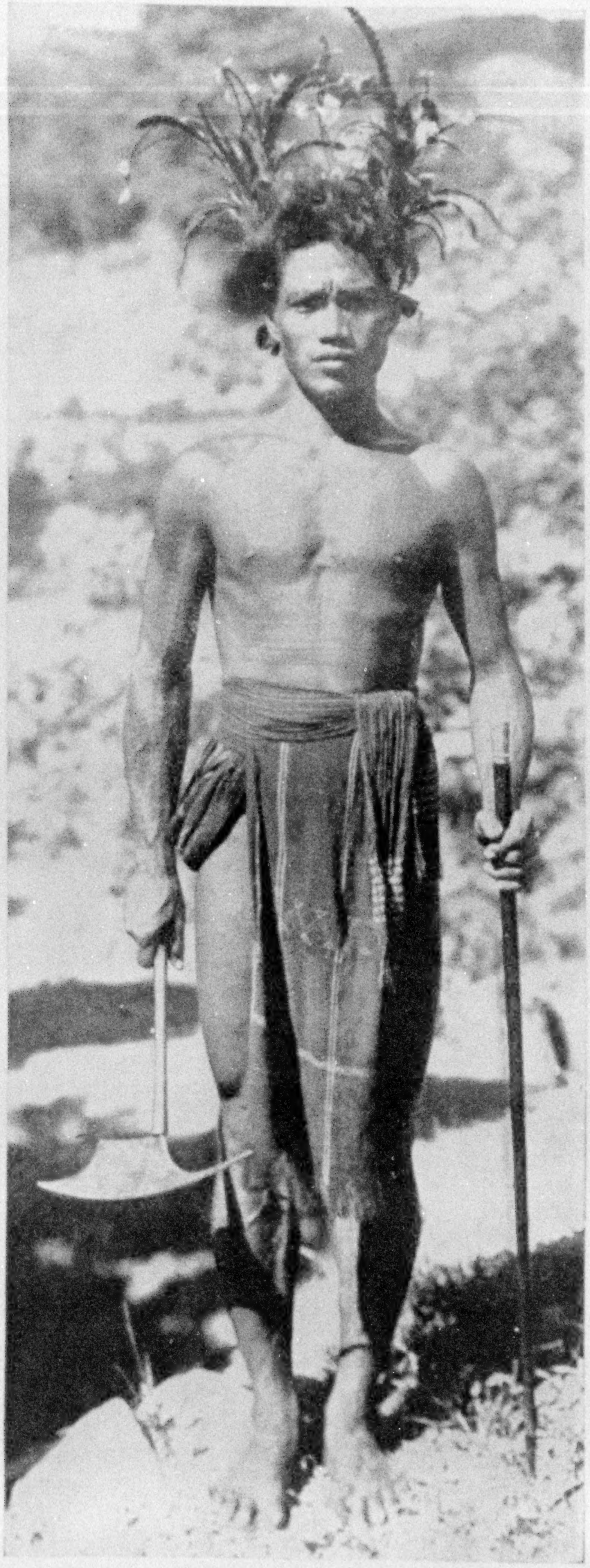
THE ONLY CURE FOR A WIDOW'S GRIEF

A widowed wife starves herself for days, discards her upper garment, and may not bathe during a period of six months unless the men of the family sooner succeed in taking a head. During the entire period of mourning, which is supposed to end when a head is taken, she gives away to hysterical fits of weeping and shrieking, which last for hours.

The women of this tribe are celebrated for their chastity, and the affection between husbands and wives is undoubtedly deep and lasting. Their mourning is in many cases the result of genuine sorrow, rather than of the necessity for the perfunctory carrying out of a time-honored ceremonial.

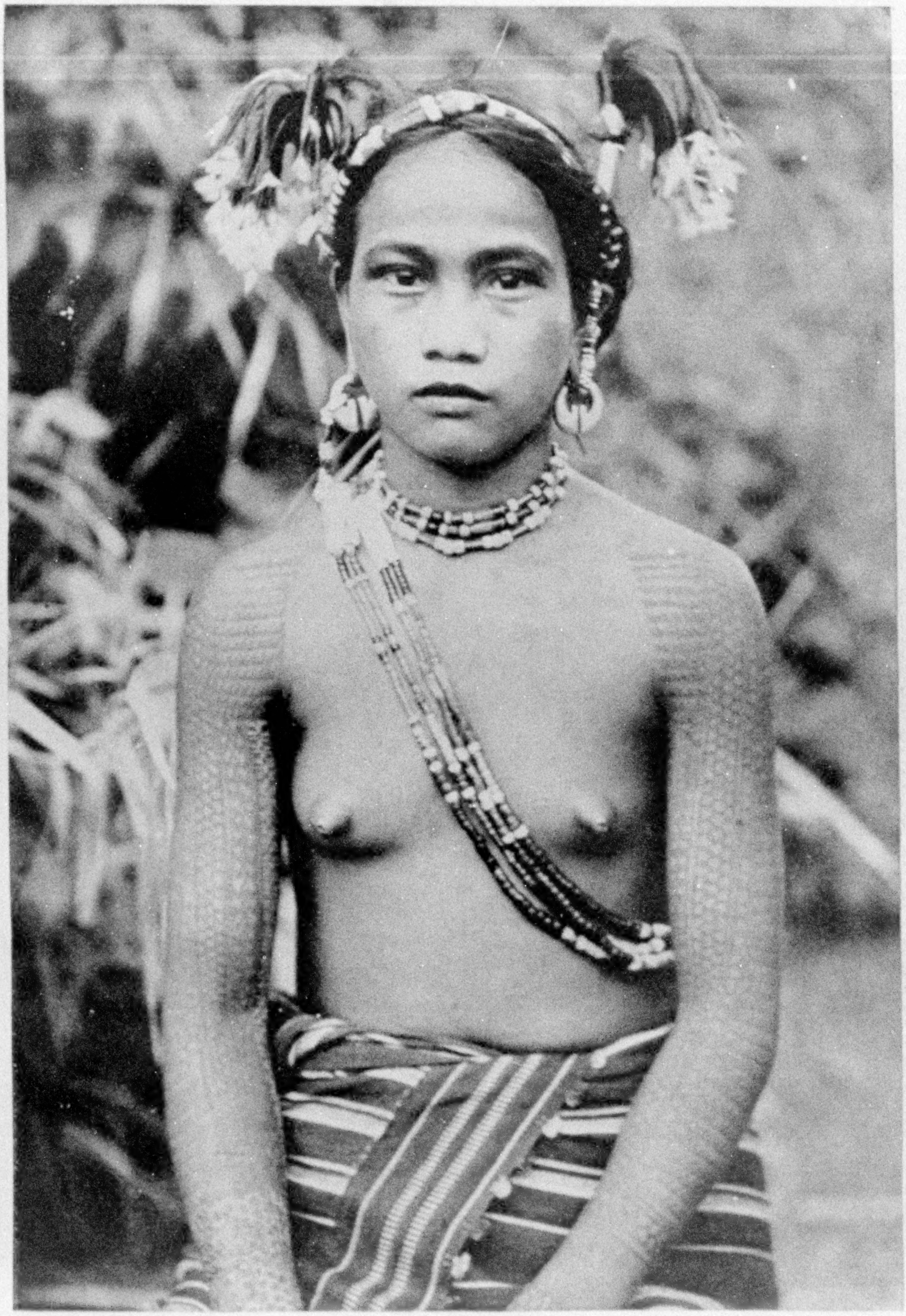
Many a night have I lain and listened to some poor woman, half a mile away, who called to her departed husband from dusk to daylight with hardly a moment's intermission. These faithful women often refuse to refrain from outward manifestations of grief after the prescribed period of mourning has passed, but continue to call for their husbands, and I know of no more pathetic thing than their long-continued efforts to bridge the mysterious gulf which separates them from those whom they have loved, ending, as not infrequently happens, in their own death or in madness.

Of the ceremonies which attend the return of a war party with heads, we at present know little, except that the heads are ultimately chopped into pieces, one of which is given to each member of the war party, who thereupon places it in



AN INHABITANT OF "NO MAN'S LAND"

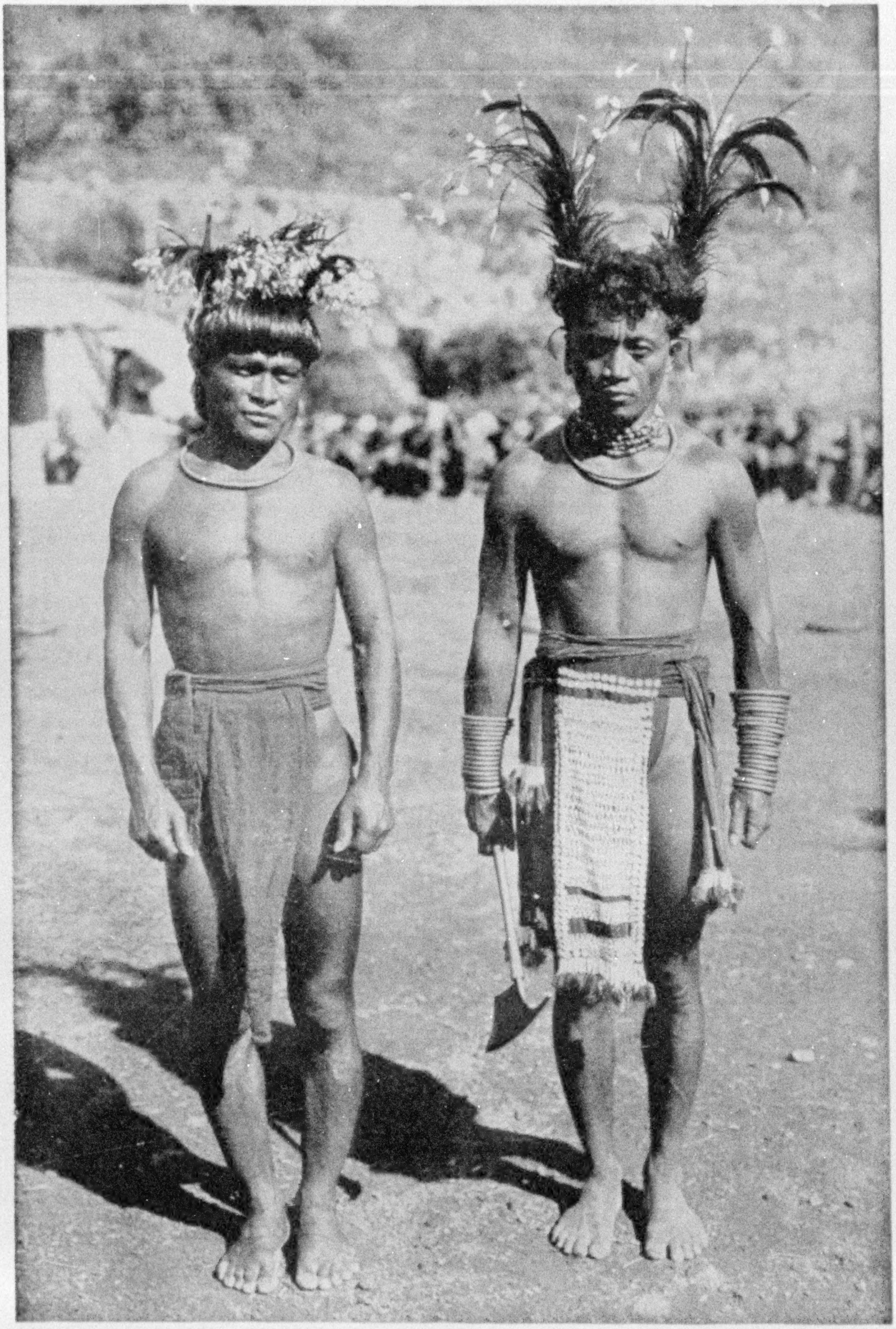
Note his feathered head ornaments and his gracefully shaped head-axe. The men are noted for their superb physical development.



A YOUNG WOMAN OF "NO MAN'S LAND," SHOWING TYPICAL TATTOOING AND ORNAMENTAL HEAD DRESS

Intermarrying with near-by tribes is shown in a blending of both physical characteristics and racial customs

XUM



TWO MEN OF "NO MAN'S LAND," SHOWING TYPICAL DRESS AND ORNAMENTS

These people are the last to come under government control, and isolated cases of head-taking still occur among them (see page 930)

KUM

half a cocoanut shell, which in turn is put in a bamboo basket and set up beside one of the several entrances to the town.

It is believed that evil spirits cannot pass these rows of head-baskets, the number of which indicates only too plainly that head-hunting is still common in many parts of Apayao.

THE PEOPLE OF NO MAN'S LAND

In the vicinity of Lubuagan there is a peculiar "No Man's Land," where meet the regions inhabited by the Tingians, the Kalingas, the Ifugaos, and the Bontoc Igorots. There has been intermarriage between members of the several tribes, resulting in a blending of physical characteristics and racial customs, and it is often difficult to state with any degree of certainty to what particular tribe, if any, the people of a given town belong.

Like their neighbors, the inhabitants of this region are skilled agriculturists, raising rice and yams on the steep mountain sides, and cultivating sugar-cane with much care. Their houses resemble the houses of the Kalingas more than those of the Bontoc Igorots. The women have adopted some articles of dress from the Kalingas and others from the Tingians. They are apparently indebted to the latter for the huge "form improvers," worn under their skirts around the lower abdomen and over the hips. In some cases they wear upper garments, but more frequently they do not. They set inordinate store by old agate beads.

PERFECT PHYSICAL DEVELOPMENT

Many of the men have a most perfect physical development. Their clouts are often elaborately ornamented with beads and buttons, and they wear coils of copper wire about their necks. Into their back hair, which is confined in little caps like those of the Bontoc Igorots, are thrust plumes of scarlet and yellow feathers, or of cock's tail feathers, having small yellow, white, or scarlet birds' feathers fastened to their tips with wax. These people are especially warlike, and among them are found some of the most famous head-hunting chiefs of northern Luzon.

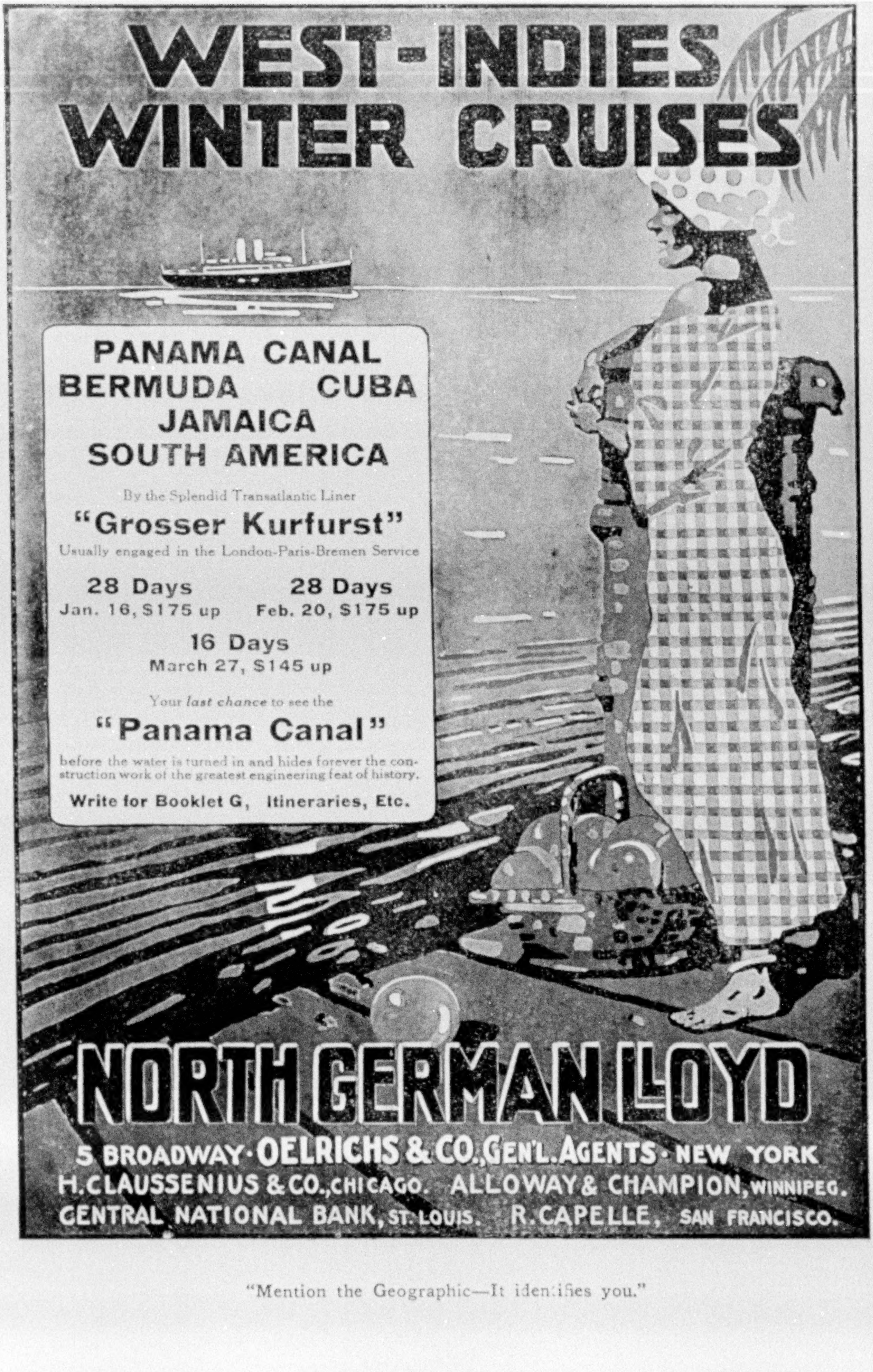
With the exception of the Tingians of Apayao, they have been the last people to come under government control, and isolated cases of head-taking still occur among them.

HEAD-HUNTING BECOMING RARE

As will have been inferred from many of the statements made in this article, head-hunting—which until recently annually cost the lives of thousands of people in northern Luzon, prevented agricultural development, and brutalized those who practiced it—has, since the American occupation, been very effectively checked. It is now entirely unknown in much of the territory where it formerly prevailed, and is everywhere exceedingly rare, except in a few remote portions of the subprovince of Kalinga, in the subprovince of Apayao, and among the Negritos inhabiting the still practically unexplored regions bordering on the Pacific coast of northern Luzon.

Although I have, in this article, sometimes allowed myself to drop into the present tense in describing the head-hunting tribes of northern Luzon, it should be remembered that unless otherwise specifically stated the conditions which I have set forth are those which existed when Americans first came in contact with these peoples. In a future article I shall tell of some of the changes which it has proved possible to bring about.

Meanwhile let it be remembered that the peculiar, and sometimes highly objectionable, customs which have prevailed, or still prevail, among the million non-Christian inhabitants must not be credited to the Filipinos, the civilized and Christianized inhabitants in the Philippines, of whom there are some seven millions.



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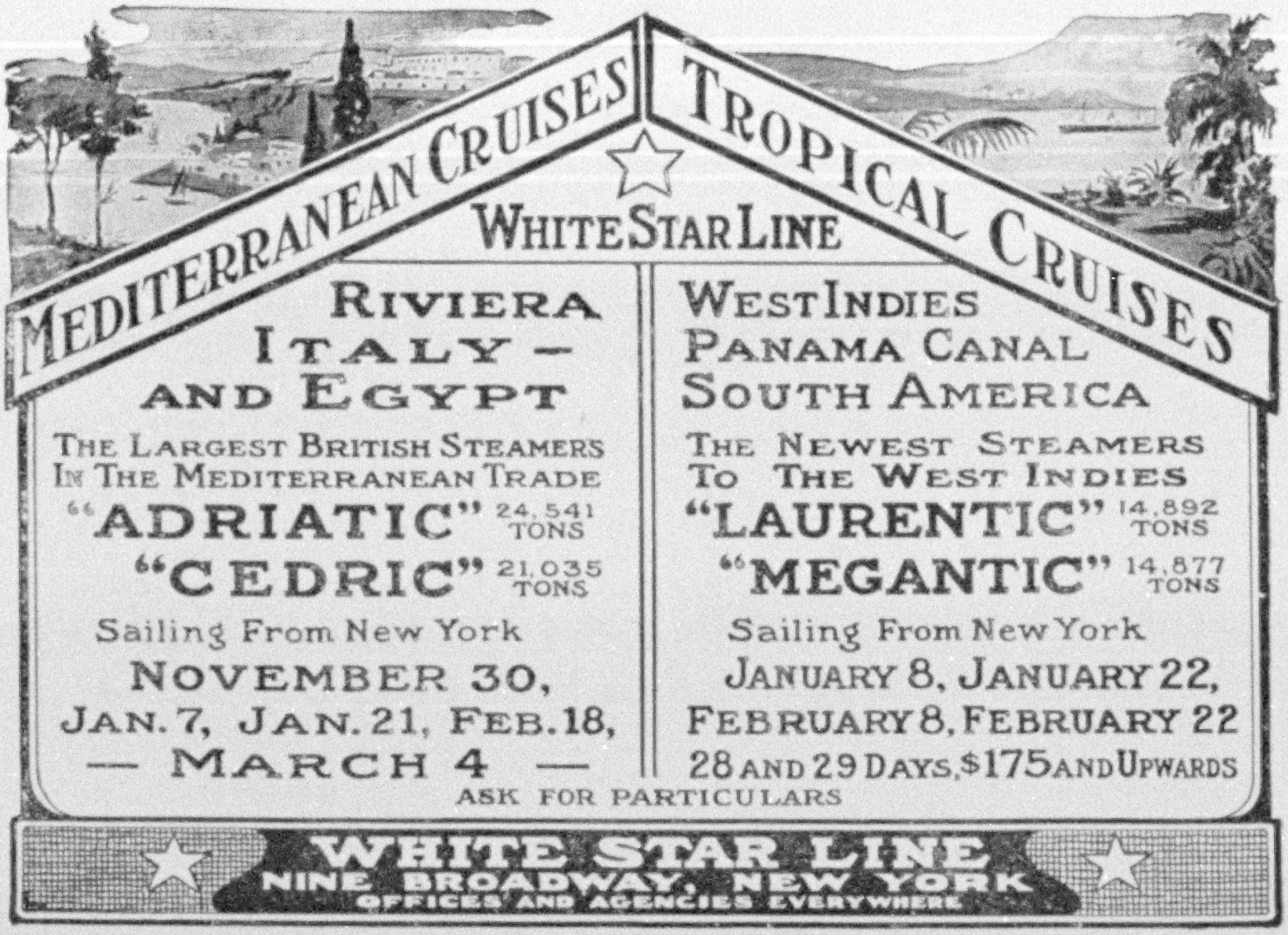

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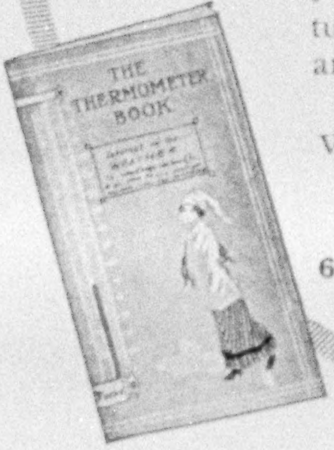

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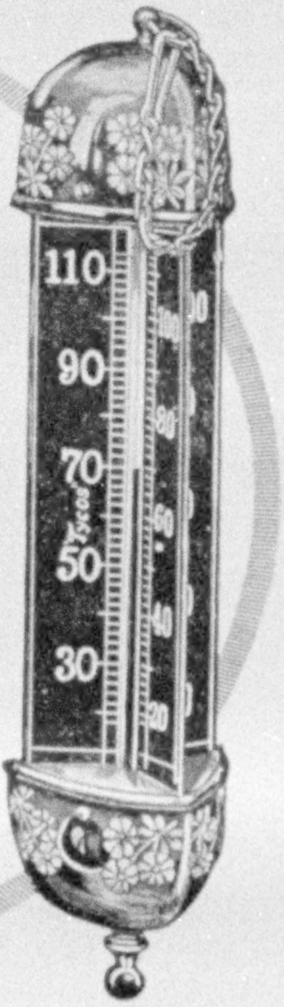

Your Telephone Horizon

The horizon of vision, the circle which bounds our sight, has not changed.

It is best observed at sea. Though the ships of today are larger than the ships of fifty years ago, you cannot see them until they come up over the edge of the world, fifteen or twenty miles away.

A generation ago the horizon of speech was very limited. When your grandfather was a young man, his voice could be heard on a still day for perhaps a mile. Even though he used a speaking trumpet, he could not be heard nearly so far as he could be seen.

Today all this has been changed. The telephone has vastly extended the horizon of speech.

Talking two thousand miles is an everyday occurrence, while in order to see this distance, you would need to mount your telescope on a platform approximately 560 miles high.

As a man is followed by his shadow, so is he followed by the horizon of telephone communication. When he travels across the continent his telephone horizon travels with him, and wherever he may be he is always at the center of a great circle of telephone neighbors.

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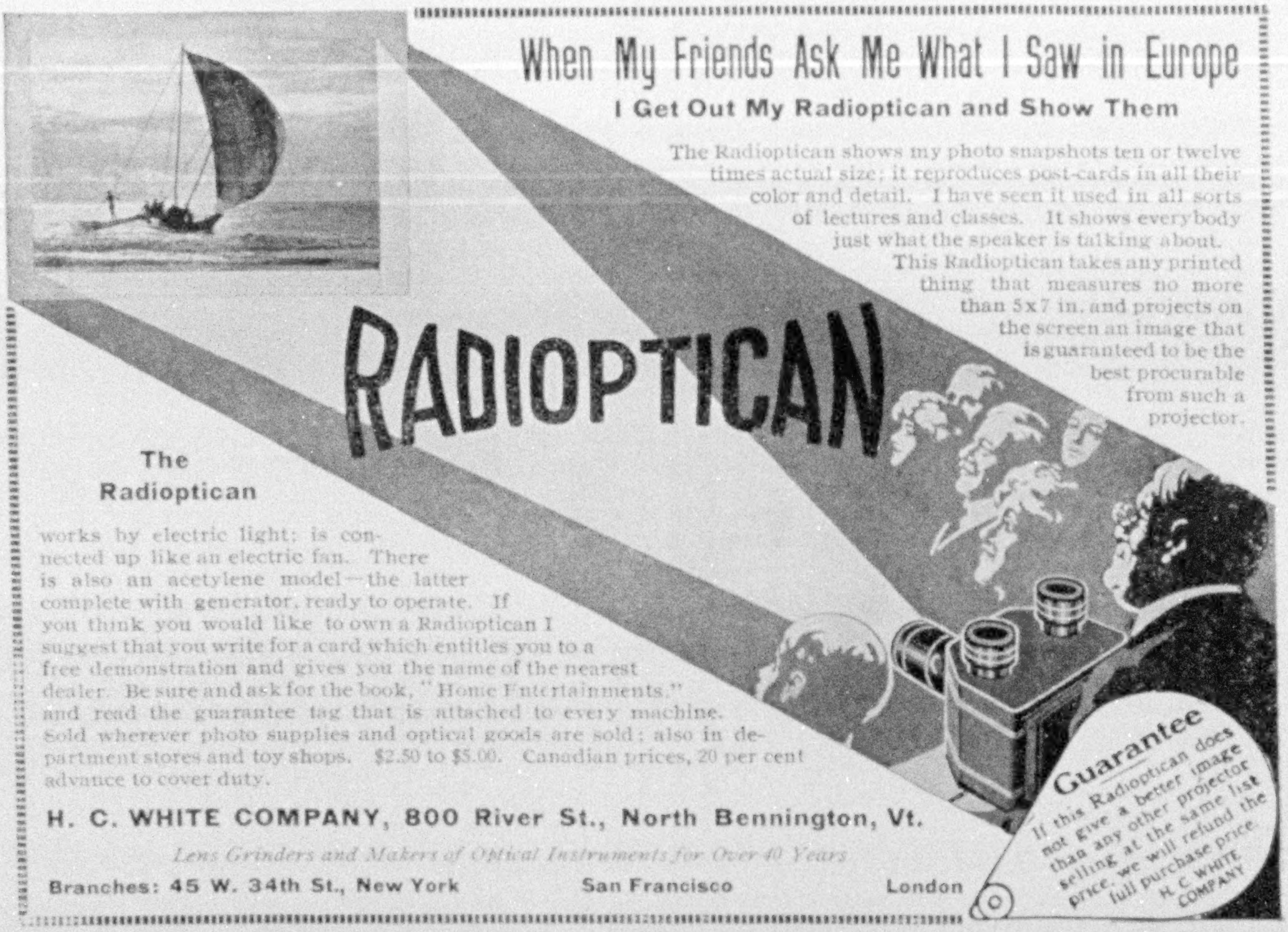

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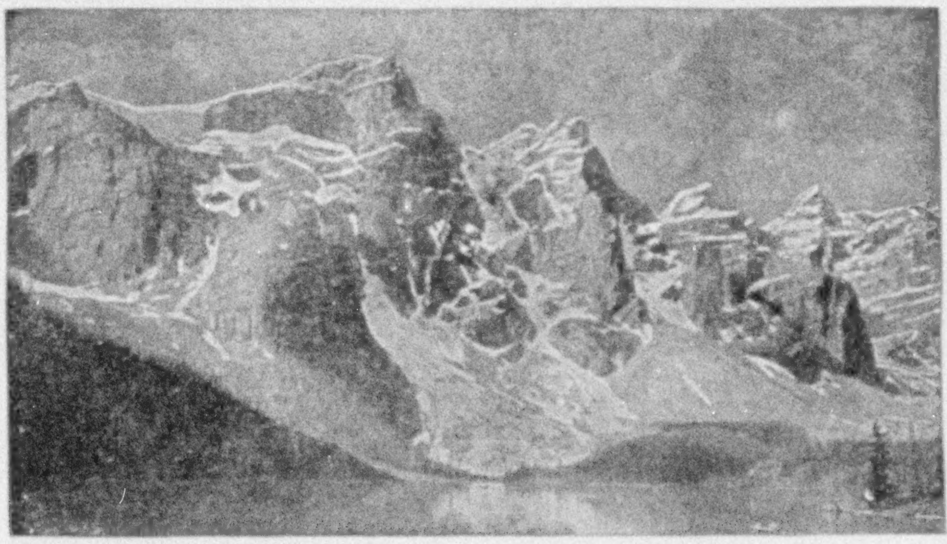

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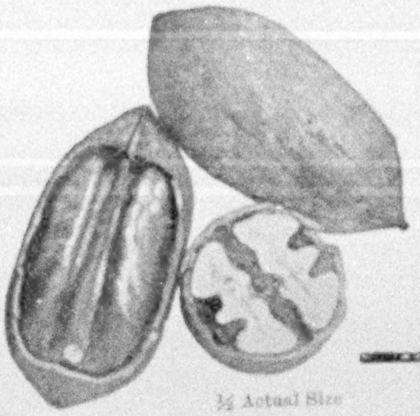

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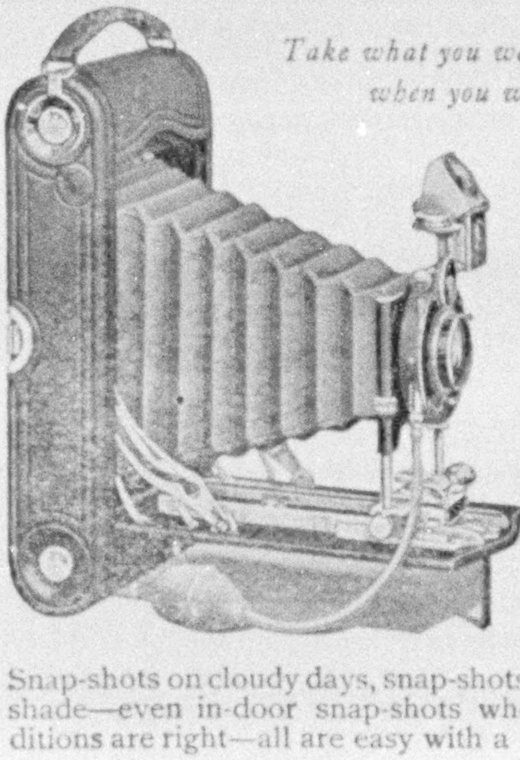

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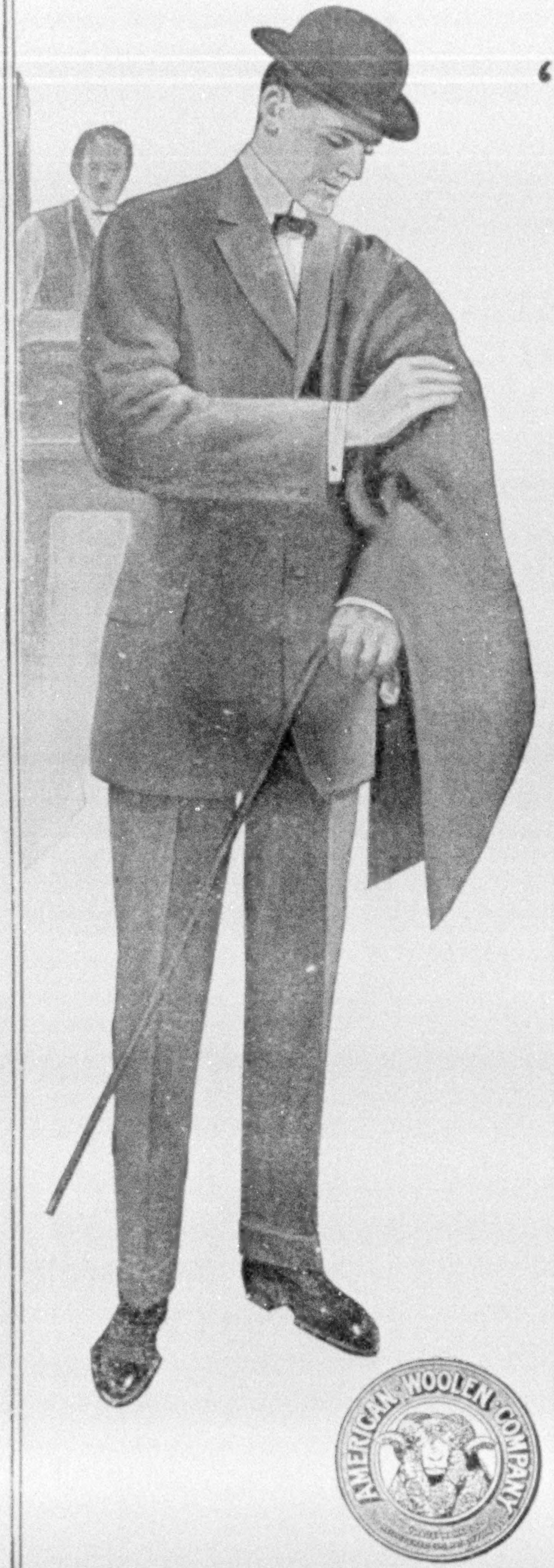

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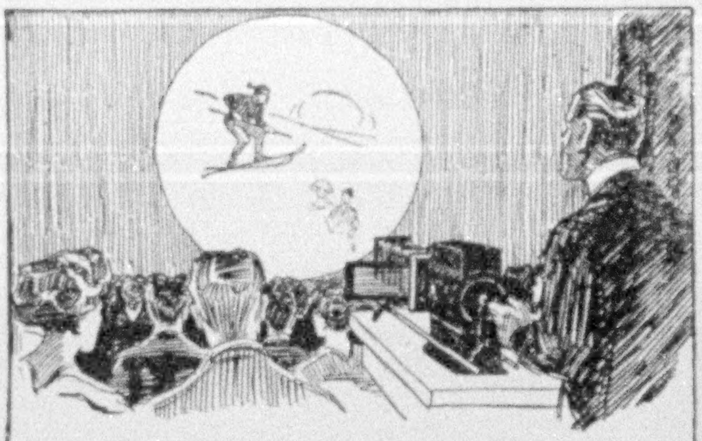

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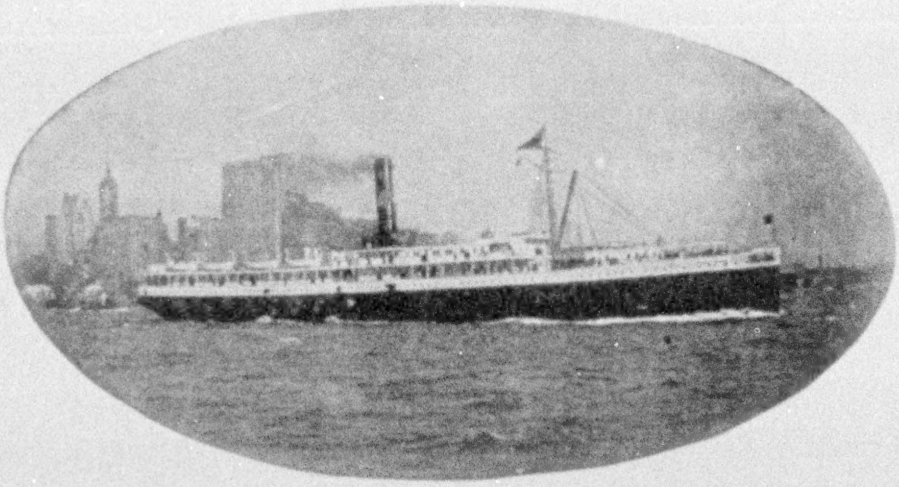

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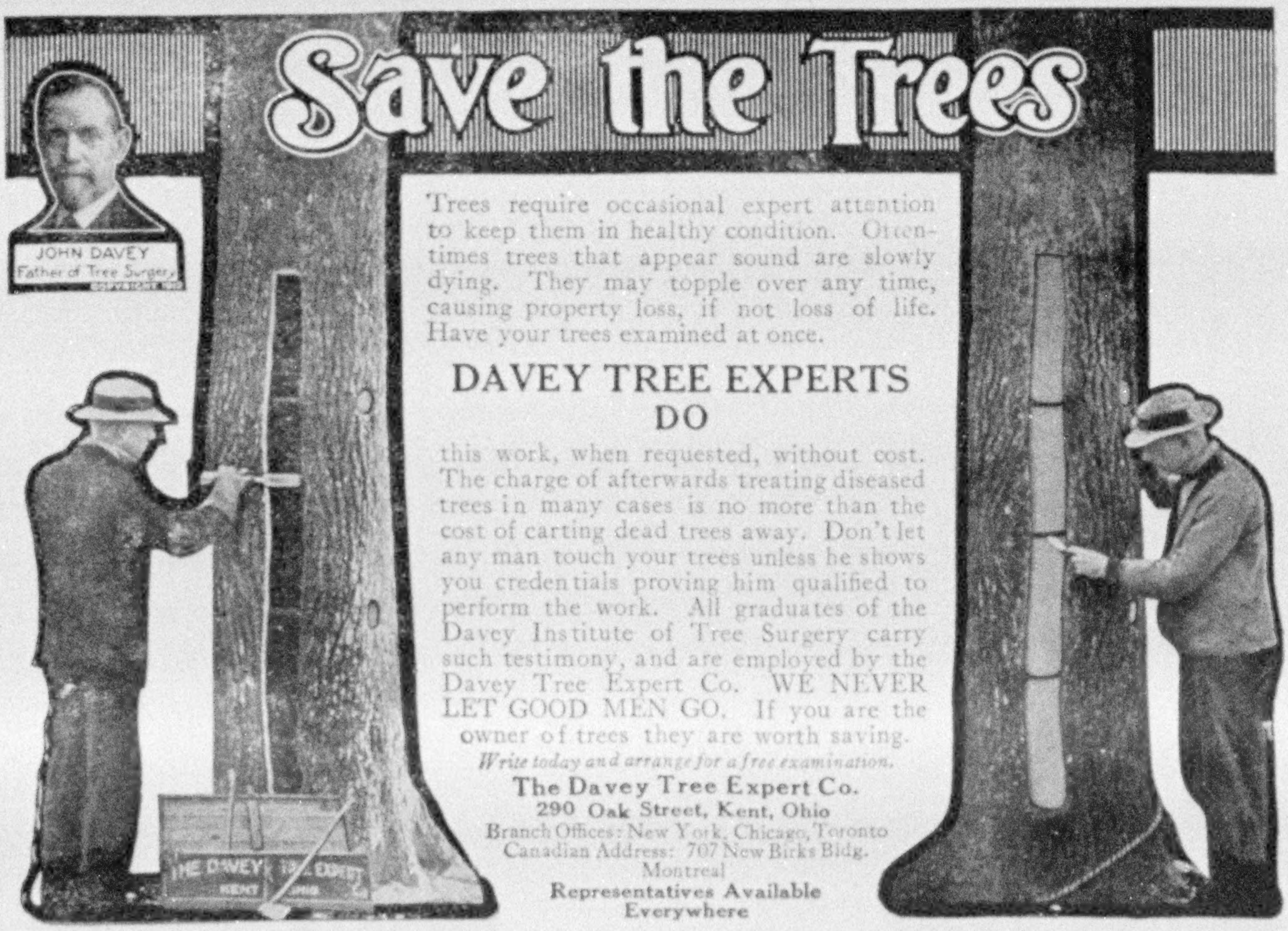

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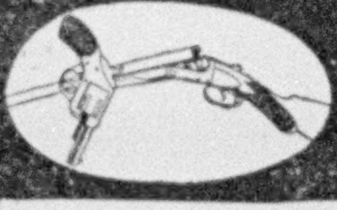

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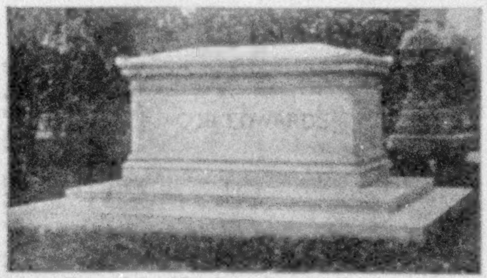

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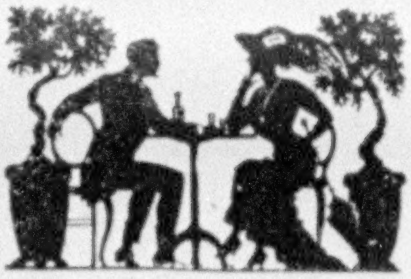

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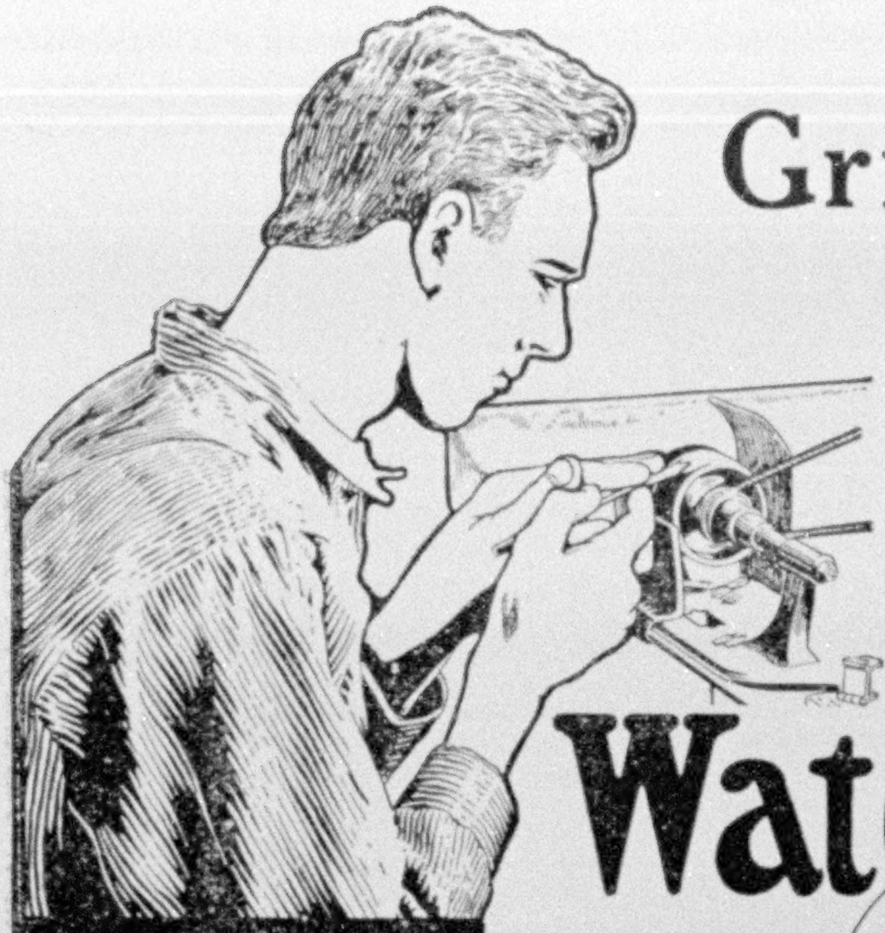

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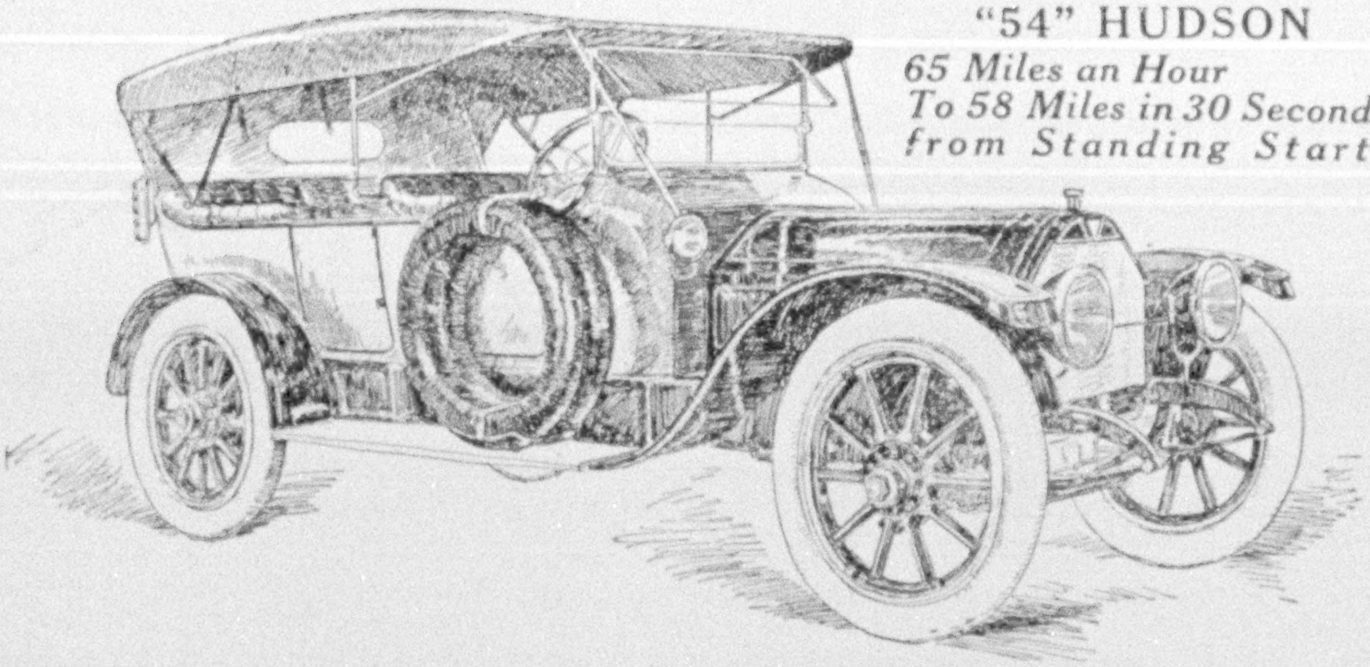

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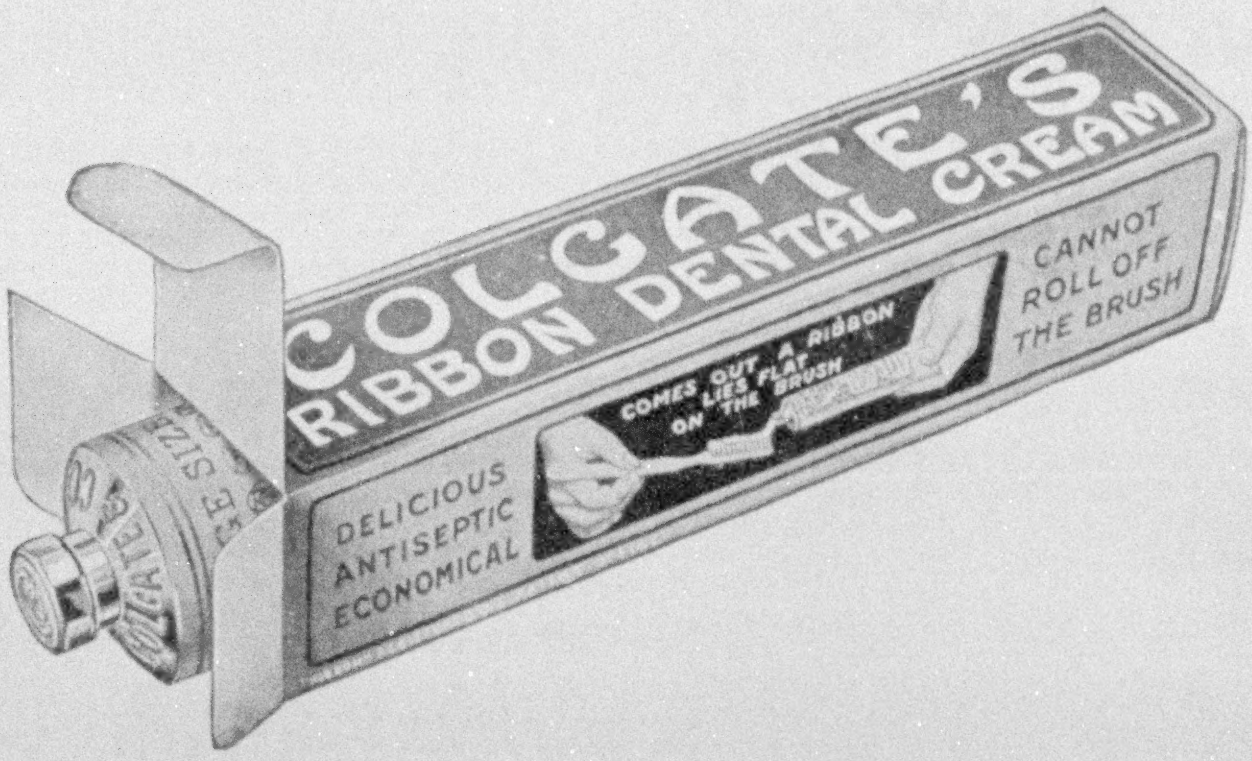
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